

Vol 8 No 6

June 1991

\* \$3.50

# The Australian **COMMODORE** and **AMIGA** REVIEW



World of  
Commodore  
Show Discount  
Coupons  
INSIDE

**World of Commodore Show News**

**A1000 Revival - The Phoenix Motherboard**

**Harpoon . TEAM SUZUKI . Das Boot . Tower FRA**

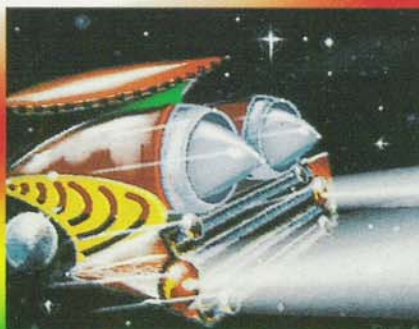
Registered by Australia Post Publication No NBG 6656

\* Recommended Retail Price

**AEGIS**

# 4096 COLORS SPECTRACOLOR ANIMATION

In SpectraColor™, every drawing tool and animation control you need is at your fingertips—over 50 tools in the fast-menu Toolkit, plus point-and-click access to all 4,096 colors, with independent right and left mouse-button colors and modes. Add automatic animation generation, easy mouse controls for all functions, and the ability to paint with multi-page animated brushes, and you've got a powerful tool for artistic expression.



#### Powerful Painting and Drawing Functions

- Control two separate color and drawing modes with left and right mouse buttons
- All 4,096 colors available from the HAM palette
- Select colors from any pixel on the screen
- Easy access to over 50 drawing and painting tools
- NTSC or PAL display, with Interlace and Oversean
- Load IFF pictures and brushes or HAM-ANIM-format animations created with other programs

With animation controls this simple, you'll find it easy to put your ideas in motion. Forget coordinate systems and reference numbers—just move objects with the mouse in the intuitive graphical environment. Saves in standard ANIM and IFF formats.

#### Outstanding Animation Features

- Create animations with up to 4,096 colors
- Modify brushes while defining animations
- Paint each cel of a multi-page animated brush with a single ANIM-brush stamp
- "Tween" animations along free-hand paths

#### Superb Brush Handling

- Includes 7 predefined 3D surfaces for brush wraps
- Easily customize your own wrap surfaces
- Resize, rotate, tilt, flip, bend, twist or stretch brushes
- User-definable Blend plus 20 other color modes
- Use Brush Tile Patterns or any Color Mode to fill any shape, including text and airbrush dots



#### Plus Many Other Essential Tools

- Retrievable Brush and UnDo buffers
- Rectangular, Free-form and Polygon Cut tools
- Rub-through and Pantograph for easy tracing
- Luminosity, Transparency and Solid settings
- Pixelizing with selectable pixel sizes
- Cycle-Draw with user-definable color spread

Distributed and Supported in Australia by:  
 **COMPUTERMATE**

  
**Oxxi inc.**

Photon Paint and Digi Paint owners can upgrade to SpectraColor for \$69.95 plus \$10 delivery by sending payment plus original program disks and front cover of manual to: Computermate/SpectraColor Offer, P.O. Box C64, Mt. Kuring-Gai, N.S.W. 2080. Ph: (02) 457 8388.

# ACAR

# The Australian Commodore and Amiga Review

## News Notepad

Contact v1.2, All-in-One, Audition 4, product upgrades	4
	6

## C64 / 128

### The C64 Column GEOS Column Using Basic

Owen James	RAMLink and RAMDrive	52
Owen James	New products, hints and tips, errors	59
Nick van Heeswyck	Sprite movement by joystick	34

## Amiga

### World of Commodore Show CDTV - A Full Review CDTV - Applications CDTV - Library Phoenix Motherboard CLI Tutorial - part 12 Hints and Tips Local Programming Talent

Andrew Farrell	Preview of the Sydney exhibition	10
Andrew Farrell	Commodore Dynamic Total Vision	14
Andrew Farrell	The potential power of CDTV	16
Andrew Farrell	Initial CDTV applications library	20
Scott Castledine	Amiga 1000 strikes back!	21
Andrew Leniart	Using ED, the Workbench editor	44
Tim Strachan	Useful hints on using your Amiga	42
Tim Strachan	Australian talent - there's a lot around	64

## Education

### Carmen in the Classroom Where in Time is . . . ? Dinosaur Discovery Kit Kadimakara

Anne Glover	Miss Sandiego at school	32
Anne Glover	Carmen Sandiego in history	36
Anne Glover	Zug the dinosaur has a fun time	38
Anne Glover	A database of Australian prehistoric fauna	40

## Entertainment

### That's Entertainment Game Reviews

News, Hints & Tips, Letters, Hall of Fame	69
Tower FRA, A.D.S., Das Boot, Harpoon, Team Suzuki, Panza Kick Boxing	61

### Quick Shots

A first look at new games: Insects in Space, Super Monaco GP, Wizards World, Speedball	72
---	----

### Adventurer's Realm

Help, Hints, Problems, Chit-chat	78
----------------------------------	----

## Advertisers Index

79

**Australian Commodore Review:** 21 Darley Road Randwick,  
NSW 2031 Phone: (02) 398 5111  
**Published by:** Saturday Magazine Pty Ltd.

**Editor:**  
**Entertainment Section Editor:**  
**Advertising:**

Andrew Farrell  
Phil Campbell  
Ken Longshaw (02) 398 5111  
or (02) 817 2509  
Brenda Powell  
Andrew Dunstall  
Darrien Perry (02) 398 5111  
NETWORK Distribution  
Ian Liddell Pty Ltd

**Production:**  
**Layout:**  
**Subscriptions & back issues:**  
**Distribution:**  
**Printed by:**

**Advertising:** Ken Longshaw (02) 398 5111 or (02) 817 2509

**VOL. 8  
NO. 6  
JUNE 1991**



# Regional Computers

## The Amiga Supermarket

**SPECIAL: Amiga 2000 Computer \$1479**

**GVP 42Mb/F A500 Series II**  
**\$959**

**GVP 52Mb/Q A500 Series II**  
**\$1169**

**GVP A2000 HC8/52Mb/Q**  
**\$1129**

**GVP A2000 HC8/80Mb**  
**\$1199**

☆ Amiga 500 computer	\$799.00
☆ Amiga 2000/40 meg HD	\$2249.00
☆ Amiga 2000 Professional	\$1649.00
Amiga 3000/40	Call
Video Digitiser A500/2000	\$99.99
AT bridge board	\$779.99
Amiga Midi Interface	\$129.00
Sound Sampler	\$50.00
Stereo Sound Sampler	\$99.00

### Memory Expansions

512k Ram expansions	\$69.99
512k with switch & battery	\$75.00
1Mb A1000/500 extern/0	\$199.00
2Mb A500 Internal/0	\$120.00
KC XT Board	Call
AT Once Board	Special Low Price

### Modems

Maestro Modems 2400	\$265.00
Maestro Modems MMPS	\$379.00
Fax Modem Maestro 9600	\$379.00
Action Replay 2000	????
Action Replay 1000	NEW

### Hard Drives

GVP A500 40Mb Quantum	\$879.00
GVP 105Mb/Q A500 Ser's II	\$1559.00
GVP A2000 HC8/105Mb	\$1349.00
GVP A2000 HC8/170Mb	\$1870.00
Amiga A590 20Mb	\$579.00

### Hand Scanner

IMG Scanner	\$289.00
Hand Scanner A500/2000	\$375.00
Cameron Scanner/Software Type 10	\$699.00
Cameron Scanner colour	\$1399.00
VIDI RGB Splitter	\$279.00

☆ **NX1000CL \$369.00**

Deluxe Amiga 500 Computer	\$1099.00
Video Amiga 500 PC	\$1499.00
Music Amiga 500	\$1199.00

**New this month :**  
**GVP 68030 Power + 16Mb RAM**  
**+ SCSI Controller \$1699**

**You never know how low I will go!**

018 911 011 or 09 328 9062  
PO Box E265, Perth 6001  
611 Beaufort Street, Mt Lawley Perth 6050 WA

### Printers

Star	
L C10-II	\$325.00
LC24-10	\$499.00
LC15	\$579.00
LC24-15	\$749.00
LC200CL	\$449.00
NX1000CL	\$369.00
LC24-200 CL	\$699.00
LC24-200	\$599.00

Citizen coloured	
GSX200	\$439.00
GSX140	CALL
GSX180D	\$299.00

Epson	
LX 400	\$269.00
LQ 400	\$469.00
LX 850	\$379.00
LQ 550	\$559.00
LQ1010	\$749.00

Free cable this month

### Disk Counts

3.5" DSDD	\$7.99
3.5" DSHD	\$18.00
3.5" Memorex	\$16.00
Lifetime Guarantee	
3.5 Internal Drive	\$159
3.5" External Drive	
5.25" Ext Drive	\$239.99
Action Replay MarkII	\$165.00
Amiga Mouse	\$39.99
1 Mb RAM exp A590	\$85
1 Mb Simms exp GVP	\$85

**Genlock New Type**  
**\$289**

### Public Domain

Fish 1/490 - Amicus	
Amigan - T-Bag	
Faug - Amaz - NZ	
17Bit. Amigoz	
Cost from	
<b>\$1.49</b>	
per disk	

# Editorial

The World of Commodore Show is just around the corner (July 12-14). It's the Amiga show we have all been waiting for. Right now I have a pile of faxes in front of me from exhibitors from the United States who will be here next month. It will certainly be exciting to see a strong overseas presence here. Next issue we hope to bring you more detail on the seminars, exhibition layout and special events.



Right now we can tell you some of the products and companies which will be at the World of Commodore Show - check out Notepad for details.

Of course, the main attraction will be the launch of CDTV. We managed to get a sneak preview of one of the first units in the country and spent some time checking out a few of the applications which will be launched with the machine. See our feature story in this issue.

When CDTV arrives, you'll be able to buy it at a number of locations including computer stores. Commodore is pushing the device as a real mass market consumer home entertainment device. I have no doubt that this is certainly where CDTV is headed. The unit will look totally at home as part of an existing stereo system, or sitting atop your VCR. Trouble is, some in the family may not take too kindly to having *Neighbours* shunted to one side while you take to your multimedia space encyclopedia or joust your way through the CD quality sounds and standard HAM graphics of *Defender of the Crown*. So, CDTV may not surpass the television so easily. Many today are content with the passive entertainment television provides. CDTV requires user input.

Until the really catchy games and educational disks turn up, CDTV will probably only get a place in the study, or kids room. However, the entertainment titles coming soon will demand centre stage. They will not only be fun to play but also to watch. Only then will CDTV begin to edge its way into traditional television habits.

Perhaps the biggest potential lies in home grown applications - maybe an interactive multimedia version of *Burke's Backyard*, or the complete travellers guide to Australia. How about a Rugby League or Cricket disc which not only lets you play the game, but also includes years of statistics, classic moments, and a team database which works with the optional floppy drive. To make CDTV a truly mass market product it will need mass market appeal. At around \$1495, the applications will need to offer something practical, something Australians can relate to, before thousands will go out and buy something which at first they will not understand the potential of. After all, CDTV is both a CD player with a computer inside it and a computer wrapped in a CD player casing.

**Andrew Farrell**

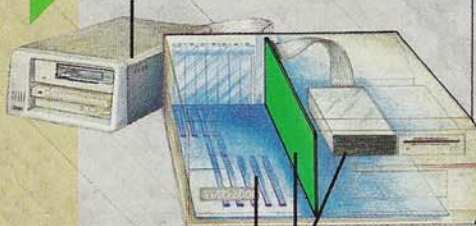
# The Ultimate All-in-One Amiga® 2000 Add-on... 68030 POWER+ 16MB RAM+SCSI CONTROLLER

Replaces up to FOUR "normal" expansion boards!

**IMPACT**  
Series II

Now, a 22 or 33 Mhz 68030 accelerator board, up to 16MB of 32-bit wide RAM and a high-performance SCSI hard disk controller in a single A2000® "CPU slot" expansion board!

Optional External SCSI Peripherals



All A2000 Expansion Slots Free

GVP All-in-One Board + SCSI Drive Installed

## Check out these features:

- ✓ The perfect companion for NewTek's Video Toaster.™
- ✓ 22Mhz or 33Mhz factory installed, surface mounted, 68030 CPU and 68882 FPU.
- ✓ Up to 16MB of 32-bit wide memory expansion. 4MB minimum factory installed memory on 33Mhz version, 1MB minimum for 22Mhz.
- ✓ GVP's new custom 32-bit wide, 1MB or 4MB, SIMM32™ memory modules offer flexible, easy-to-install memory expansion. 22Mhz model has 1MB factory installed memory, expandable to 13MB. 33Mhz model has 4MB factory installed memory, expandable to 16MB.
- ✓ On-board high-performance "Series II" auto-booting SCSI controller with factory installed FAAASTROM SCSI driver and SCSI connectors for attaching both external and internal SCSI peripherals.
- ✓ Direct DMA access to the full 16MB range of 32-bit wide memory expansion by the on-board SCSI controller. Due to the A2000 bus architecture, this is ONLY possible when SCSI controller is placed directly on the 68030 CPU bus (as is

the case with the A3000!). Provides ultimate SCSI hard disk performance!

- ✓ GVP's legendary FAAASTROM SCSI driver supports virtually all SCSI devices currently on the market, including hard disk drives, CD-ROM drives, Magneto-Optical drives, removable media drives and tape drives.
- ✓ Switch to 68000 mode by simply clicking on our new "68000 Mode" Icon, or include our special "mode switching" utility in your startup-sequence and select required mode each time system is rebooted, by holding down mouse buttons.
- ✓ Provides the ultimate expandability of your A2000 system. Plugs into the "CPU accelerator" slot, thereby leaving ALL FIVE A2000 expansion slots free for future expansion.

Internal SCSI Hard Drive (3.5" available up to 340MB!)

Built-in GVP Series II DMA SCSI Controller

Surface-mounted 68030 CPU and 68882 FPU (22 or 33Mhz)

SCSI Connector for external SCSI peripherals

Up to 12MB of 32-bit wide, User-installable SIMM32 Memory Expansion

1MB (22Mhz) or 4MB (33Mhz) Surface-mounted 32-bit wide Memory



## COMPARE:

	A2000 +GVP All-in-One	Commodore A2500/30	Commodore A3000®
68030 CPU and 68882 FPU	Y	Y	Y
Maximum CPU clock speed available & shipping TODAY	33Mhz	25Mhz	25Mhz
Maximum 32-bit wide FAST memory on 68030 CPU board	16MB	4MB	16MB
Direct DMA access to more than 8MB of fast memory	Y	N	Y
DMA SCSI controller built-in on 68030 CPU board	Y	N	Y
Number of open Amiga expansion slots with 68030 CPU, SCSI controller and more than 4MB fast memory installed	5	3	4
RAM upgrades through easy-to-install 32-bit wide SIMM memory modules	Y	N	N

SCSI OWNERS  
CALL FOR  
UPGRADE  
OFFER

**GVP**

Distributed in Australia by

**Power Peripherals Pty. Ltd.** Expansion Solutions

P.O. BOX 555, LAVERTON, MELBOURNE, VIC 3028 AUSTRALIA  
PHONE: (03) 369 7020 FAX: (03) 369 4342

SIMM32 and GVP are trademarks of Great Valley Products, Inc.  
Amiga, A2000 and A3000 are registered trademarks of  
Commodore-Amiga, Inc.  
Video Toaster is a trademark of NewTek Inc.

# Ram Rumbles

## Commodore offers \$5,000 for Education Grants

Commodore computers are offering \$50,000 worth of education grants - a welcome contribution towards the ever increasing cost of educating children. During June, any family with school age children buying a Commodore Amiga from any retail point will be able to enter the draw. Ten education grants of \$5,000 each will be awarded to the winners. Sounds like a good offer . . . how many more reasons do you need to upgrade to an Amiga?

## New Mammoth Dataflow Catalogue

Broderbund, WordPerfect, Semantic, Origin, Maxis, Claris, Spinnaker, Unicorn, Gold Disk, Compu-Tech... a few of some 50 companies represented in Dataflow's new catalogue. All products are fully supported and backed-up right here in Australia, a point which has helped make the company such a success.

This year's publication is some 160 pages in full colour. There's a special new section featuring multimedia software. According to Dataflow, this burgeoning field is set to overtake several traditional computing areas as it offers the most exciting possibilities computer program-

mers and computer users have ever seen. Dataflow have a number of products in this area for the Amiga from companies such as Gold Disk.

Of course, there's also the usual range of educational products and even a few games. We spotted a couple of likely looking musicians in there too - with odd names like "Bigger" and "Beaze".

There's pricing on every product, and there's lots in there for C64 and Amiga owners including the Satchel range of educational programs.

For your copy call: Dataflow Computer Services, 134 Barcom Avenue, Rushcutters Bay 2011.

## Amiga Music and Video Packs

Commodore have teamed up all the hardware and software you need to make the break into video or music and released two packs - Video PC and Amiga Music PC. As odd as the names might sound (using the word PC is bound to throw some off the scent), the packs sound like good value for money.

The Video pack includes a 1Mb Amiga 500, Alter Image genlock, cables, video software and clip art, fonts and Fusion Paint. There's also a specially prepared VHS video tape providing the newcomer instructions on how to prepare a computer video. RRP for the whole show is \$1599. A short form version without the computer costs \$749.

For music buffs the Amiga Music package contains the same 1Mb Amiga 500, MIDI interface, sequencer software, cables, instructional audio tape and retails for \$1299 for the lot, or \$449 for the computerless version. □



## UPDATE COLUMN

Hi! By the time you read this I will once again be dragging my weary body through Exhibitions in Atlanta, Chicago and Taipei looking out for wonderful new products that we can bring you in the near future. I am sure in my next Update Column I will excitingly be bringing you oodles of new info.

Meanwhile, some bad news! The Cameron Hand Held Scanners will no longer be available. The manufacturer has signed an agreement with a German company to make trillions of IBM quality Mice instead of the scanners and we have four left at time of writing this column. After that and into the foreseeable future there will be no more Amiga scanners with OCR. We will however be temporarily bringing in an Amiga Scanner without OCR and have been informed of another one to be released in June/July. I will of course keep looking for an OCR package to run with one of the scanners.

There are a couple of sales coming up that I think you should make a point of going to as I know there will be many products there, some of them well below cost. I am not sure of the dates but I know that in June both Harvey Norman and Computer Spot will be having sales, and I believe Harvey Norman are also having a software promotion in July. Keep an eye out on press, TV and in this magazine.

Educationally speaking I am pleased to inform you that we now have FUN SCHOOL 3 in French and we will be releasing several new programmes at the Amiga World Computer Show in July (we have our own Stand there). Please keep this under your hat, but we will be releasing RED SECTOR DEMO MAKER and FUN SCHOOL 3 on CDTV. We will also be releasing there a new range of very budget Amiga games. A couple of brilliant new games that we are releasing this month (may already be in the shops), are LUPÓ ALBERTO - THE VIDEO GAME, a great cartoonish arcade game: COHORT - a real time strategy war game the like of which I have never seen: AFRIKA CORPS - another great Impressions war game, and LORDS OF CHAOS - a "whopper" of a game (as reviewed by English magazines.)

I look forward to your company when I return. □

MAX

ADVERTISEMENT

Beauty and Functionality Redefined

# THE NEW **IMPACT** **SERIES II™ A500-HD+**

The Next Generation in Amiga® 500 Add-On Peripherals

**IMPACT**

**Series II**

Turn your A500® into a  
Serious and More Fun  
Computing Tool Today!

GVP's New **SERIES II**  
**A500-HD+** is The Ultimate in  
Hard Drive, Memory and  
Expandability for your Amiga 500.  
Major features include:

#### Leading Edge

Same high-tech custom VLSI and  
**FAASTROM™** features as GVP's new  
Series II A2000 SCSI-RAM Products.

#### Foresight

Unique new "Mini-Slot"™ brings out  
all the A500 expansion bus signals,  
allowing for exciting future expansion  
options—the only intelligent  
alternative to risky "Pass-Through"  
functionality.

#### Reliability

Includes internal fan to keep you cool  
and robust power supply ensuring your  
A500 power supply will not be  
overloaded. GVP will not compromise  
on quality and reliability!

#### Memory Expansion

Internal RAM Expansion up to  
8MB using easy-to-install SIMM  
memory modules.

#### Sleek

Custom injection-molded styling  
perfectly matches your A500 for  
unequaled beauty and elegance, setting  
a new standard for A500 peripherals.

#### State-of-the-Art

New 1"-high internal hard disk drive;  
available from 40MB through 100MB.

#### Performance

Provides no-compromise hard disk  
performance which until now has  
never been seen on the A500.

#### Seeing is Believing

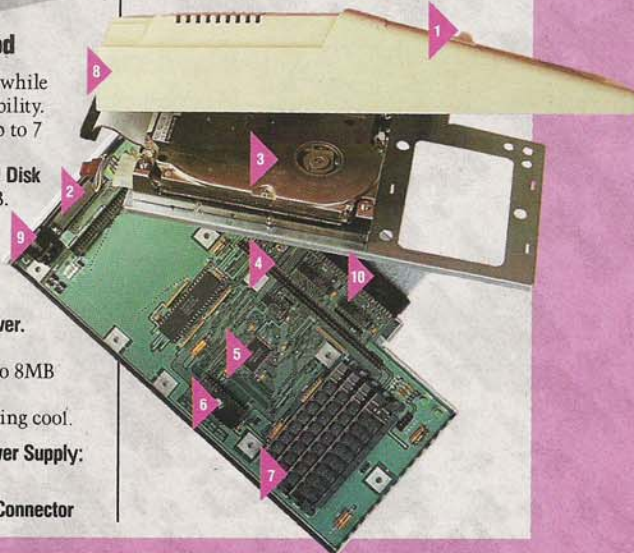
Take one for a Test "Drive" at your  
nearest GVP Dealer today!

**Call for Special End-User  
Trade-Up Details!**



#### Take a Look under the Hood

- 1 **Game Switch:** Enables RAM while enabling full game compatibility.
- 2 **External SCSI Port:** Allows up to 7 SCSI devices to be attached.
- 3 **1"-High Factory-installed Hard Disk Drive:** 40MB through 100MB.
- 4 **"Mini-Slot":** For future expansion options.
- 5 **GVP's Custom VLSI Chip.**
- 6 **GVP's FAASTROM SCSI Driver.**
- 7 **Internal RAM Expansion:** Up to 8MB
- 8 **Internal Fan:** Keeps you running cool.
- 9 **Dedicated Universal Input Power Supply:** Included.
- 10 **Reinforced 86-PIN Card Edge Connector**



**GVP**

Educational pricing program now available.  
Series II, FAASTROM and GVP are trademarks of Great Valley Products, Inc.  
Amiga and A500 are registered trademarks of Commodore-Amiga, Inc.

Distributed in Australia by

**Power  
Peripherals** Pty. Ltd. Expansion Solutions

P.O. BOX 555, LAVERTON, MELBOURNE, VIC 3028 AUSTRALIA  
PHONE: (03) 369 7020 FAX: (03) 369 4342

# Notepad

## New Contact

Our all time favourite program for keeping track of important phone numbers and addresses is **Contact** - a locally published pop-up utility. A new version which is even better has been released. Version 1.2 is Workbench 2.0 compatible and is available to registered owners for \$10. The new version includes **CalcKey 1.3** - a resident pop-up calculator.

New features include: autosave; entry highlighting; audio-tone dialling for auto-dialling without a modem; resizable window; hot-key alphabetic jump; auto-sort when adding new addresses; batch printing and numerous other minor improvements. Overall, a good improvement over the previous version and a very worthwhile program.

For more information call Frank or Joanne Keighley on (06) 239 6658.

## The Amiga Goes CD Quality!

**SunRize Industries** has announced two new releases, **Audition 4** and **Studio 16**.

**Audition 4** is an advanced 8 bit sample editor that continues where **Audio-master III** leaves off. It is a digital sound system that allows you to edit any sound in many new ways.

**Studio 16** is a professional sound editing system that is bundled with one of two audio cards. It can turn your Amiga 2000/3000 into a audio digital workstation. Record hours of audio direct to hard disk synchronized with time code. The two audio cards come with DSP chips and ram. The AD1012 is a 12 bit card that is ideal for Audio for Video applications. The AD1016 is a 16

bit card for CD quality sampling and editing.

Contact **SunRize Industries**, 2959 S. Winchester Blvd., Suite 204, Cambell, CA. 95008 (408) 374-4962 or try **Computermate** on (02) 457 8388.

## Interlink catalog disk

**Interlink Software in Canberra** have just released their first catalog cum disk magazine. This bi-monthly treat is crammed full of review articles plus info on how to order through **Interlink's** mail order service. A program is included with each issue - this month being **Amoeba**, the space invaders game. Software release dates will be included in the next issue. Price \$3 if ordered with other products, plus \$2 postage if ordered alone. Available from **Interlink**, 008 020 633.

## Bars and Pipes Professional

**Blue Ribbon SoundWorks** has given **Bars&Pipes** a major facelift, filled it with more amazing features and bumped up the price to create **Bars&Pipes Professional**.

The new version adds integrated music notation for both editing and sheet music printing. An event list editor has been included enabling direct text editing of all recorded MIDI data. The event list window is linked to the graphics editing window. Event list editing functions include insert, copy, cut paste, delete and editing with **Bars&Pipes** unique "Tools" concept. Users can now choose to use either piano

roll, enhanced staff, event list or music notation as their editing medium.

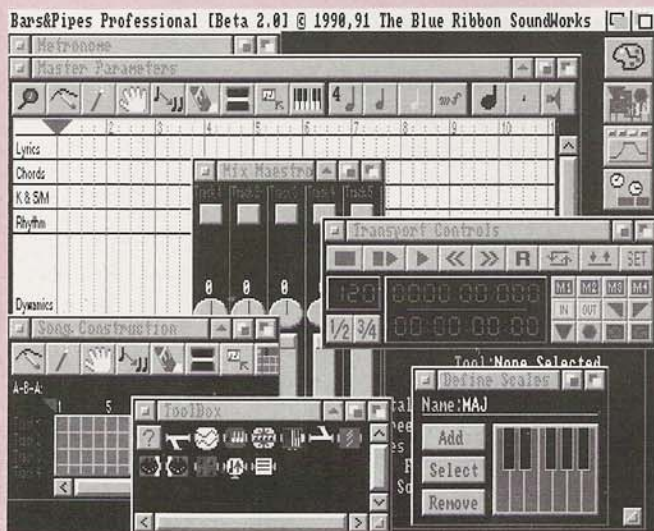
Another addition is **Mix-Maestro** which allows the automated graphical mixing of Midi tracks, including volume, panning and other specified **Control Change** parameters. The mixing movements can be recorded dynamically and played back with the performance.

**System Exclusive** data can now be recorded and edited using **Bars&Pipes Professional** and a new merge record mode has been included. The program has several new tools,

they've added!) include graphical tempo mapping and time-line scoring. For more information contact **Dataflow** on (02) 331 6153. RRP \$549.95.

## Gold Disk's All-In-One

Another entry level all-in-one package has been released by **Gold Disk**. **All-In-One** is a new and improved successor to the immensely popular **Appetiser** - which we have never seen in Australia. This is an ideal product for the first time Amiga buyer. From productivity to entertainment, **Gold Disk's**



including drum looping, which enables the looping of musical and rhythmic patterns, **Tempo Tap** which allows the tempo to be set by note input, **rhythm Pattern Generator** for creating drum patterns and other productivity tools.

Users familiar with the old version will immediately notice the new look of the product, although the feel is much the same. There's a number of new icons, relocatable and resizable transport, tracks, tools and editor windows. All these windows can be reduced to an icon when not in use.

Other amazing features (is there no end to what

**All-In-One** lets you write, print, create music and even play games.

**Write** is an easy to use high speed word processor. Write notes and letters in just minutes thanks to the intuitive icon bar. Features include search and replace, cut, copy and paste, spell checking, document analysis, and multiple documents. **Video preview** lets you see what your document will look like before you print it to any preferences supported printer.

**Paint** has all the basic painting tools, including custom brushes, an airbrush, and full Amiga font support, fast scaling and magnification. There is also support

# M V B

COMPUTERS

&

## Computa Magic

506 Dorset Road, Croydon 3136  
Phone (03) 725-6255

Shop 5/30 Hall Street, Moonee Ponds 3039  
Phone (03) 326-0133

### (GVP) Great Valley Products

#### GVP SERIES II A2000 SCSI Hard Card + 8MB RAM Controller. (HC8/xx) (0K)

Series II A2000 HC8/52Mb Quantum \$1160 (New 1 inch high mechanism. 19ms access time)

Series II A2000 HC8/105Mb Quantum \$1360

Series II A2000 HC8/170Mb Quantum \$1750 (15ms access time)

Series II A2000 HC8/80Mb Seagate \$1215 (Deal of the year)

#### GVP SERIES II A500 HD+ (SCSI controller, 8Mb RAM Expansion, custom mini-slot, perfectly matching case)

Series II A500 HD8/40Mb Fujitsu \$999

Series II A500 HD8/52Mb Quantum \$1250

Series II A500 HD8/105Mb Quantum \$1649

One Card \* Accelerator  
\* SCSI Hard Card  
\* 16Mb RAM exp.  
The GVP SERIES II Accelerator

*All products are in stock*  
*\$10 overnight shipping (Australia wide)*

*12 months warranty on all items*  
*24 months on Quantum Hard Drives*

#### Data Flyer SCSI Interface

Introducing the DataFlyer - offering great performance at a cost attractive price.

##### FEATURES

- AUTO-Booting
- AUTO-Install software for super easy formatting
- Non DMA design eliminates DMA problems - Supports Fast File System (FFS)
- Amax Compatible
- Auto-Diskchange for Syquest
- Mouse button defeats AutoBoot

**COMPATIBLE WITH ALL MAJOR HARD DRIVES.**

DataFlyer A2000 45Mb Seagate \$795 23ms

DataFlyer A2000 40Mb Quantum \$895 19ms

### The ULTIMATE A2000 Expansion

- \*22Mhz or 33 Mhz models available
- \*Single PCB design (featuring)
  - \*68030 (cpu), 68882 (fpu)
  - \*SERIES II SCSI controller with GVP FAAAST ROM
  - \*Up to 16Mb of 32-bit-wide RAM (60ns)
  - \*Optional mounting bracket for 3.5" SCSI hard disk
  - \*Supports All WorkBench revisions and Amiga UNIX
  - \*The fastest ZERO wait-state design possible

### GVP SERIES II ACCELERATOR

22Mhz, 1Mb RAM  
**\$1,699**

for all Amiga resolutions and printers.

Music lets you create songs or alter the ones that come with it. Tools include full music notation, on screen piano keyboard, a selection of high quality instruments, and volume, tuning and tempo control. MIDI input and output, SMUS and MIDI file support and the ability to print sheet music.

At \$99 retail, the package should prove quite popular. For more information call Dataflow on (02) 331 6153. Full review next month.

## Product Upgrades

**From: Computermate**  
P.O Box C64  
Mt Kuring-Gai 2080  
(02) 457 8388  
Photon Paint  
to Spectracolour

If you own Photon Paint and you think you could do with the extra thrill of HAM animation be sure to upgrade by sending the original disks plus front cover of your manual along with \$69.95 to Computermate.

### 3D Professional

Upgrade - Contact U.S.A Office directly.  
**DigiView (any version) to Digiview Gold 4.0**

A software upgrade with extra manual. Cost is \$59.95 plus \$12.50 postage and handling. No proof of purchase necessary.  
**Excellence (any version) to Version 2.xx**

Return original Excellence disks plus \$59.95. The latest version includes a large number of improvements and bug fixes plus a number of additions to the ring bound manual. The greatest improvement is in the area of speed.

### Lattice upgrade to V5.1

Return original manual and disks along with \$220. No delivery or handling charge.

### Superbase X.xx to Version 4.0

Huge number of new features, completely new manuals, Workbench 2.0 look and feel, proper Amiga file requestors, LAN support and much more. Send back original disks and dongle along with \$399. No delivery or handling charge.

### ProWrite 3.0 to 3.1

Return original ProWrite disks plus \$15 (includes postage and handling). A few bug fixes and a couple of new features.

### PageStream 1.6 to 1.8

Return original disks plus \$15 (includes postage and handling). If you have just purchase version 1.8, send your registration card to the U.S.A address of SoftLogic immediately.

Some users have already received a free upgrade to version 2.1. (A local upgrade path to version 2.1 will be announced soon.)

NB: Where not stated, add \$9.50 to local upgrades and \$12.50 for interstate upgrades to cover postage and handling.

**From: Ramsan Software**  
P.O Box 267  
Avondale Heights 3034  
Phone/Fax: 08 254 2261

### Audio Engineer 1.xx to 1.14

New features on this improved version include support for Perfect Sound 3.0; a lower price of \$99; high sample rates of 38,000 samples/second in stereo or 56,000 samples per second in mono. The interface has a Wb 2.0 look and feel. You can upgrade by send in the original disk plus \$5 postage and handling to the RamScan Software. □

## LOST

The availability of more Memory for the Amiga 1000 or 500

## FOUND

1 Meg. Auto Configuring Memory boards, designed and manufactured by XEL

## REWARD

**\$299**

provides you with either -  
a 1 Meg fully populated board  
or, 2 x 1 Meg unpopulated boards

### MEMORY SPECIAL

512K Chip Packs Rec. ret \$48.  
25% Dis. applies if purchased with XEL boards

**XEL** Pty Ltd

G.P.O. BOX 121 Adelaide. 5001  
Phone 08-2317396 or 018-824648 anytime  
DEALER ENQUIRIES WELCOME

# ATonce v1.27

## The Ultimate IBM-AT-Emulator

for the Amiga 500

AT a price you can afford

**\$549**

80286 processor + Multitasking  
704K + 8M Extended/Expanded memory  
Boot from any hard drive  
Support all Amiga hardware  
Copy from DOS to DOS with supplied utility  
VGA-EGA-CGA Graphics  
Dealers required

**105M Quantum hard drive**

**\$895**

Fit this into your A590 and fly

## Fonhof Computer Supplies

64 Cross Street, Baulkham Hills NSW 2153  
Phone (02) 639 7718 Fax (02) 639 5995

# Making Music is easy with the **KAWAI FunLAB MUSIC SYSTEM**

INTRODUCING THE  
COMPLETE MUSIC  
SYSTEM FROM KAWAI



- No technical knowledge of MIDI is required to operate the software.
- No external amplification is needed.
- System operates on Amiga 500, 1000, 2000 and 2500.

## THE KAWAI FunLAB MUSIC SYSTEM

HERE'S WHAT YOU GET...

**KEYBOARD-**

A 61 note keyboard with full size keys (colour colour co-ordinated with the Amiga), built in stereo speakers, 100 different studio sampled instrument sounds, 100 accompanying rhythms, programmable One Finger Ad Lib feature, and lots lots more.

**SOFTWARE-**

Steinberg FunLAB software is a 5 track sequencer (allowing overdubbing and multitrack recording) with music notation display, song lyric display, jukebox feature, optional 'quantize' or error correct and three demonstration songs.

**MIDI INTERFACE-**

Compact MIDI interface which fits directly into your Amiga serial port.

**MIDI CABLES -**

Two MIDI cables for connecting the KAWAI keyboard to the MIDI interface.

**AVAILABLE FROM:**

Computermart Pty Ltd, WA (09) 328 9799  
Computer Discounts, NSW (02) 281 7411  
Hard Disk Cafe, NSW (02) 979 5833  
Chanticleer Computer Centre, NSW (067) 72 8888  
United Computers, Qld (072) 82 6232

Casino Computers, NSW (066) 62 5220  
Stephens Music Centre, NSW (047) 51 6196  
Master Systems, Vic (03) 720 6722  
Gray's Music, NSW (065) 72 1611  
Norsoft, Qld (077 43 4777)



**KAWAI**

*Sounds great!*

Or contact:

**KAWAI AUSTRALIA PTY LTD**  
PO BOX 189  
WATERLOO NSW 2017  
PH (02) 663 0571  
FAX (02) 662 4726

DEALER ENQUIRIES  
WELCOME



Please send me more information on the Kawai FunLAB Music System

Name: .....  
Address: .....  
I own a: ..... Phone: .....

# world of commodore AMIGA

**exhibition**

**july 12 - 14**

**Darling Harbour, Sydney**



*by Andrew Farrell*

**F**inal arrangements for the World of Commodore Show are under way. Commodore have worked hard to produce an exciting stand showing a range of products working in 'real life' situations. CDTV will be heavily featured on the Commodore stand.

A number of overseas companies faxed us regarding products they plan to exhibit at the show. Here's what you can expect to see:

## Soft-Logik

Several new products will be on show including a drawing program, a bitmap editor, a word processing program and an inter-program communications system.

Soft-Logik will feature an exciting new structured drawing program. The drawing program will allow desktop artists the ability to use basic objects like circles and rectangles as well as the more complex Bezier curves. It will also have the ability to save files in EPS and IFF DR2D format for easy importing into programs like *PageStream* or *Professional Page*. The drawing program will support Adobe Type 1 outline fonts and will be fully compatible with all Amigas and Amiga DOS 2.0.

The bitmap editor will be a program that can edit pictures. It will, for example, read IFF ILBM pictures from 1-24 bitplanes, save any imported picture as a compressed IFF ILBM file and easily load pictures into *PageStream* via the inter-program communications system.

The wordprocessing program will allow you to type text and edit text as a separate document yet be able to import text into any *PageStream* doc-

ument via the inter-program communications system.

The inter-program communications system will be the revolutionary new way for Amiga programs to share data and documents. It will allow two or more programs to share common pictures, text, numbers and other data even while the program creating the data or document is still editing it. Product names and pricing will be announced prior to product release dates.

## I.C.D.

ICD will be demonstrating a range of their hard drives and controllers including the new Prima 52i and Prima 105i. Like the Novia 20i, these two units mount cleanly inside an Amiga 500 computer, allowing 52 or 105 megabytes of high speed storage that takes absolutely no desk space.

Prima replaces the Amiga 500's internal floppy mechanism with a high performance Quantum hard drive. ICD's new "Shuffle Board", a part of the Prima package, reroutes DF0: to the external floppy connector making any Amiga compatible external floppy drive act as a true DF0: device.

With this unique hardware combination, some advanced features will include autobooting from FastFile-System partitions, high speed caching, auto-configuring, and A-Max II support. Prima comes with complete instructions and all the pieces necessary for a simple, clean, no solder installation.

Note: both packages require an A500 with switching power supply, one meg of RAM, and an external floppy drive.

## Digital Micronics Inc - 33 & 60 MHZ Graphics Processors

The DMI family of High Resolution Graphics systems for the Amiga provides for between three to five times more addressable data, giving you a higher definition, high performance display system. Each board has programmable control up to its maximum resolution. With over 16 million colours available you will be able to display images that are near photographic quality.

The 1280 x 1024 x 24 plane system makes available the full 16+ million colour spectrum and over 1,300,000 pixels. The 1280 x 1024 x 8 plane system utilises the full 16 million colour palette with 256 active colours. The DM1010 system has available a Program Buffer Option that can be utilised to increase on board memory up to eight megabytes. The Extended Resolution Option increases maximum resolution to 1280 x 1024. The Video Memory Buffer Option, for the Dm1010 and Dm1020, doubles the amount of available Vram, providing for faster screen displays.

Both systems offer performance features that, until now, have only been available in higher end workstations. To support these high resolution systems, DMI has available a full line of quality monitors ranging from 13" to 25" and display systems all the way up to 10'.

## Free Spirit

Free Spirit currently publishes over 20 titles for the Amiga and has just recently released its first CDTV title.

Among Free Spirit's diverse Amiga software offerings are the award winning *Barney Bear* series for pre-school education, *Barney Bear Goes to School* is available for the Amiga and CDTV. Other *Barney Bear* titles include *Barney Bear Goes to Space*, *Barney Bear Goes to the Farm*, and, a new release, *Barney Bear Goes Camping*.

At the World of Commodore/Amiga Free Spirit will be premiering a new educational title for children in the 6-8 year old age group.

*Adventures in Math* is an Amiga software program to teach young children addition, subtraction and counting skills. As with the *Barney Bear*

series, *Adventures in Math* utilises colourful graphics, amusing sound effects and entertaining games to teach children in a fun way.

Free Spirit will also be displaying its challenging new arcade/strategy title for the Amiga called *Abyss*. *Abyss* features multi-directional scrolling graphics, fully digitised sound effects and incredibly challenging puzzles.

For the more practical Amiga user, Free Spirit will feature *Ami Alignment System* and *Doctor Ami*, two essential diagnostic utilities for the Amiga. *Ami Alignment System* is used to diagnose mechanical and electronic malfunctions of Amiga floppy drives. *Doctor Ami* is used to diagnose expansion memory, hard disk and floppy disk errors.

For playful adults, Free Spirit will have on hand its naughty and controversial best seller, *Sex Olympics*. The title says it all.

## CDTV Application : Barney Bear Goes to School

Free Spirit have begun shipping *Barney Bear Goes to School* for CDTV. This is an interactive early education game for children ages two to six.

*Barney Bear Goes to School* makes full use of the CDTV medium with colourful graphics and multi-track audio. It consists of two parts. Storytime, that shows children how to get ready for a day at school, and Schoolroom, that lets children select and play many learning activities.

Through interaction, Storytime teaches children the benefits of a clean room, eating a good breakfast, and looking both ways before crossing streets as Barney Bear makes his way to school. The game asks children to identify objects on the screen and then rewards them for correct choices with an audio sound track response.

Once in Schoolroom, children may choose any of the learning activities as many times as they wish. These activities include spelling games, counting games, colours, shapes, and a colouring book. Here too, correct and incorrect selections are guided with a response from the audio track.

*Barney Bear Goes to School* for CDTV is being distributed by both Commodore and independent distributors into most CDTV retail outlets. It has a suggested retail price of \$39.95 (U.S.). *Barney Bear Goes to School* is also available for the Amiga computer.

Free Spirit Software has been a Certified Commodore developer since 1984. Primarily a developer of educational and utility software for the Amiga and the Commodore 64 and 128, this is the company's first CD-based product.

## GVP Revolutionary PVA Board

GVP are certain that this will be the highlight of the show and that demonstrations of this multifunctional colour enhancement system will attract intense interest.

Another product which will be featured by GVP is *SCALA*, a professional presentation software package that is also bound to generate excitement. Demonstrations of this program at shows in the U.S. have drawn huge crowds.

GVP will also be showing their newly redesigned accelerator boards. The 22 and 33Mhz versions are now SCSI controllers with 32 bit wide RAM, on one card, while the 50Mhz version is a two-board solution and is now user expandable to 32MB. Judging from the response in the U.S. to this brand new product, they feel that interest in the accelerator line will be overwhelming.

GVP will be attending the World of Commodore/Amiga show with their Australian distributor, Power Peripherals. The President of GVP, Gerard Bucas and Gregg Garric the Vice-President of Sales and Marketing will be present at the show.

## GVP Redesigns 50Mhz 68030 Accelerator Board

GVP has announced the release of its redesigned 50Mhz 68030 accelerator board. Already the fastest board on the market, this new model will allow even more speed and expandability.

The accelerator comes populated with four megabytes of 60ns DRAMS and has the capability of expanding to 32MB of 32 bit memory. New; optional IDE/At drives

available with the unit are the Maxtor 1" high 120MB drive or the half-height 340MB model. (Each have average access times of 17ms).

Another important feature of this GVP A3050 is that even with a full blown 32MB, 50Mhz kit installed in the A2000's "CPU" slot, all of the expansion slots are left free for unlimited future expansion.

The A3050 accelerator kit populated with four megabytes of RAM is available from authorised GVP dealers at a suggested list price of \$2999 (U.S.).

## GVP Multifunctional Colour Enhancement Board

GVP has also launched a multifunctional colour enhancement board which will allow video professionals to create broadcast quality video pictures, images and animations.

According to Gerard Bucas, president of GVP, "Our PVA board can transform the desktop computer into an affordable professional video production studio."

The enhanced 24 bit colour resolution offers 16,000,000 colours, and also features a built-in digital keyer and flicker fixer. Also built into the unit is a frame buffer, and genlocks for both RGB analog and Composite video signals.

Known as the PVA3000/2000, the unit is designed for use with the Amiga 3000 and is also compatible with the Amiga 2000 by using a small video adaptor board. Included with the board is 3D rendering software, as well as a two dimensional 16,000,000 colour GVP paint package. Suggested manufacturer's retail price for the unit is \$1999 (U.S.).

Be sure to buy next month's ACAR for a complete guide to show exhibitors and events. □



Background graphic from *SCALA*

# CDTV

## Commodore Dynamic Total Vision (CD + TV = Mass Consumer Product)

### A Full Review

by Andrew Farrell

**T**wo problems exist with current computer technology. It's still too daunting for many to consider using, and for those who

tial Amiga buyers off buying an Amiga, and right onto CDTV which can easily be expanded to work just like an Amiga.

Other manufacturers will soon be joining the band wagon. CD-ROM technology has been around for some time - but CDTV provides a unique "one box" solution which offers the advantage of easy consumer acceptance thanks to its simple appearance. Fujitsu FM Towns, PC Engine and soon the

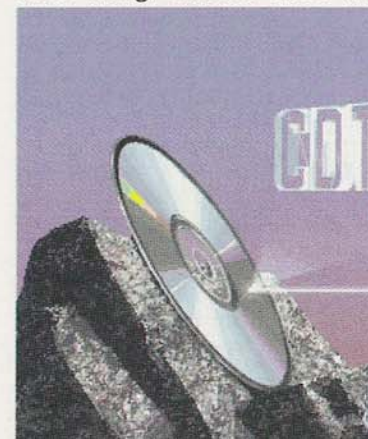
and industry observers is that Commodore is going to win the race.

Essential to CDTV's success will be the availability of exciting applications. Unlike the launch of most new technologies, because CDTV has been built using existing hardware and software, developers have been fast to create a new range of products to support the initial release. The next article looks at some of the CDTV applications which will be released shortly. However, first off, let's take a closer look at the hardware.

### First impressions

A CDTV player looks like part of your hi-fi system. The door for loading discs is larger than most. This is because the player requires discs be placed in a caddy. This is much like the plastic box CDs normally come in. The box protects the CD from scratches and dust. As you insert it into the player, much like your common 3 1/2 disk, a sliding protective gate moves to one side revealing the disc surface to the laser.

The unit looks smart. The Commodore logo is emblazoned across the top

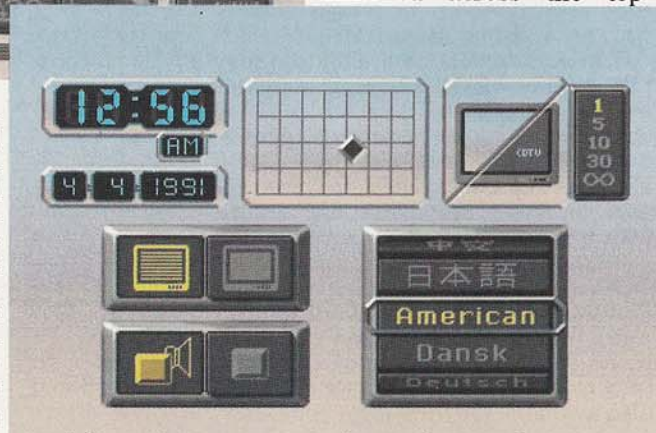
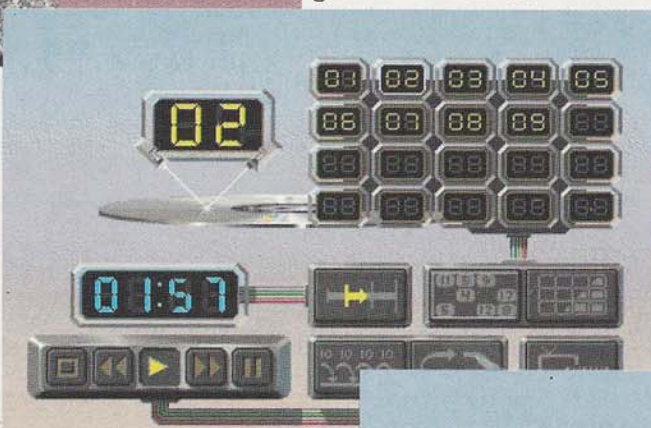


are it is becoming limited by the demanding storage requirements of graphics, animation and sound. CDTV solves these two problems in a package so pleasingly presented it stands to win first place as the consumer electronics product of the decade.

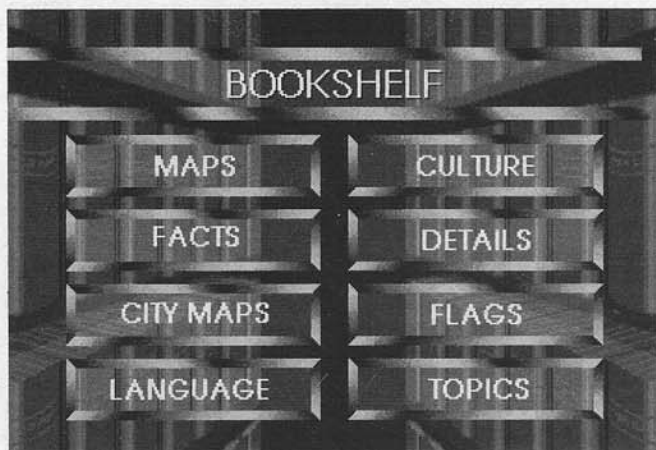
CDTV is a cleverly named device which conjures up a vision of two understandable electronic devices - the CD player and Television. Of course, despite what the marketing boys intended, the unit does in fact combine the power of CD-ROM storage with the computing muscle of an Amiga 500. A single compact disc can store around 550 Megabytes of data. With this kind of storage coupled to the Amiga, incredible potential for real multimedia applications opens up.

You will be able to buy this device in Australia within the next couple of months at a cost of around \$1495. That's low enough to put most poten-

Sony/Nintendo Super Famicom and Sega Megadrive CD-ROM consoles will also be available - not to mention the much awaited CD-I from Philips. Whilst some of the others may offer a few better features, the feeling right now amongst developers



left to right: intro screen, audio panel, CD preferences



right corner of the front fascia panel along with the words Interactive Graphics Player. The controls are much the same as your average CD-player with the addition of a reset button and volume level for headphones.

One look at the rear of the player and you quickly realise there's more to this beast than meets the eye. All the usual Amiga 500 expansion ports are included, plus MIDI in/out ports and a built-in RF-Modulator and S-Video connector. CDTV is ready to connect to your television, S-Video Monitor, stereo, MIDI-synthesiser or common Amiga peripheral. The only complaint I could file relates to the changing of the standard joystick ports to some weird looking round connector. Commodore tried this once before with the Commodore 16. The result was we never saw a decent joystick for the machine. Hopefully CDTV will be different.

A large infra-red remote controller is included as the standard control device. I found this to be fairly sensitive to which direction you pointed it, unlike the optional mouse which is easier to use and has a wider range of acceptable angles of use. On the standard controller there's a host of buttons. Working left to right you'll find a diamond cursor pad which works like a joystick, numeric keypad, Exit, Enter, control buttons for the player, a power indicator, volume control and two important selection buttons - A or B.

Kick back in your lounge chair and shuffle your way through the menus using the remote, or try operating *Defender of the Crown* with the sludgy diamond-cursor pad and you'll quickly wish for the old mouse. An infra-red

mouse is available as an option and works very well. You can also add a host of other familiar items including a keyboard and two player controller - all using those wonderful infra-red beams which must be correctly pointed for good results. If you're wondering whether you'll be able to read what the screen says, so have Commodore. They've laid down very specific ground rules to developers on making applications functional, easy to understand and use - and that includes keeping the screens readable.

## Up and running

Once your CD player is connected, you simply switch it on and pop in a disc. Notice that's disc with a C not a K. Commodore have decided the C variety are for the round ones you can only read from, whereas the K models are the homely read/write versions.

Once the disc kicks in, the Amiga boots up using a slightly modified Kickstart and few other fancy ROMs, then control is transferred over to the CD application - unless you have a floppy drive connected in which case it will attempt to boot it first.

Included with the player is an introduction disk which provides a complete tour of the CDTV player along with examples of different applications and demonstrations of the player's capabilities. It soon becomes apparent that the player is no super fast disk drive.

With the player spinning at maximum speed, an application can start grabbing around 128K of data every second. Using some smart compression techniques, that speed translates to a lot of info, not to mention CD quality music - but at times it can be a little slow. Since the Amiga is essentially a multimedia machine anyhow, the additional of CD quality sound and some 550 Megabytes of storage makes everything that much better.

CDTV can present information using a multiplicity of medias. An encyclopedia can come alive with text connected to pictures, voice, animation and music. Several elements may be presented together or individually. Information can be communicated in a number of fashions. Suddenly, books start to look rather boring. Movies you can't participate in might start to seem limiting.

CDTV is blowing open the potential for entertainment and education far beyond the limitations of a simple video, far below the high-cost interactive video disc systems, far easier to use and cheaper to install than complex computer based methods. □



## Commodore Dynamic Total Vision System Specifications

**Central Processing Unit:**  
MC68000 (Motorola) 16/32-bit CPU

**CPU speed:**  
7.15909 MHz (NTSC)  
7.09379 MHz (PAL)

**Memory:**  
1Mb (megabyte) chip RAM  
2K non-volatile RAM (reserved for system  
- clock, prefs, etc.)  
512K ROM

**Internal Slots:**  
Intelligent video slot  
(for optional genlock, RF board, etc.)  
15 pin edge connector  
DMA slot - for SCII, LAN, etc.

**Video Outputs:**  
Analog RGB, Digital RGB (DB-23 con  
nector) Composite video NTSC or PAL  
(RCA connector)  
Component video Y-C  
(S connector type for S-VHS and Hi8)  
RF Modulated (F connector)  
Optional genlock capabilities via plug  
in module.  
Three-mode (CD, video source mixed)  
under software control.

**Video Display (General):**  
400 lines / vertical frequency 60Hz  
(NTSC) 512 lines/vertical frequency  
50Hz (PAL) Maximum 1Mb video  
memory (chip memory)  
Palette for 4096 colors

**Text Modes:**  
80 characters/25 lines  
60 characters/25 lines  
Various font sizes and types selectable  
Screen colors user-definable

**CD ROM Drive Specs:**  
Sony / Phillips type CD-ROM  
standard mode 1, mode 2

**Data readout from disc:**

153 KBytes/sec (mode 1)  
171 KBytes/sec (mode 2)  
2 Megabytes/sec (burst)  
**Average access time:**  
0.5 sec  
**Maximum access time:**  
0.8 sec  
**Soft read error:**  
Less than 10e-9  
**Hard read error:**  
Less than 10e-12  
**Seek error:**  
Less than 10e-6  
**Commands:**  
CD-ROM, CD-Audio, CD+G

**MTBF:**  
10,000 P.O.H.  
**Standard supported:**  
ISO-9660  
**Data Capacity:**  
550 Megabytes (approx.) (about 700  
Amiga floppy disks)

**CD audio specs:**  
8X Oversampling  
**Audio output:**  
External 1.4 VRMS, 10K OHM

**Frequency response:**  
20-20KHz

**Signal/Noise:**  
-75dB (typical)

**Channel Separation:**  
-75dB (typical)

**Harmonic Distortion:**  
0.08% at 1KHz

**Maximum audio capacity:**  
About 14 hours - AM quality

**Sample rate:**  
Variable from CD Audio rate (44KHz)  
to 6KHz  
Dual 16-bit D/A converter plus 10-bit  
of attenuation

**Rear ports:**  
Centronics Parallel interface  
RS-232 Serial Interface  
External floppy disk drive interface  
(Amiga floppy disk drive compatible)  
Hardwired alternative to IR for ke  
board, mouse, joystick,  
2 audio output ports (RCA type plug)  
requires external audio amplifier  
MIDI In/Out

### Front port:

Stereo headphone jack  
Port for optional personal RAM card  
(up to 64K)

### Front panel display:

Fluorescent (white characters on black)  
Time, track, and volume level  
Clock remains lit when unit is turned off  
Display controllable by application

### Front panel controls:

Power on/off  
Headphone volume Up/Down  
Play/Pause  
Stop  
Forward/Reverse - Scan/Skip Reset

### CDTV operating system:

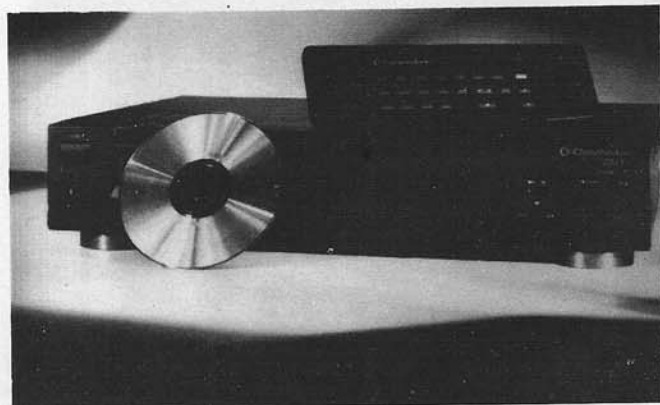
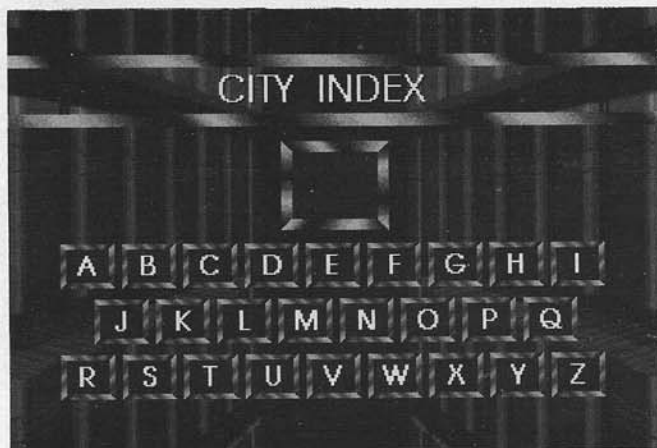
Amiga Kickstart 1.3 in ROM  
ISO 9660 File System Handler  
High-speed decompression for grap  
ics, audio and other data

### IR (infrared) remote unit specs:

Proprietary high-speed IR signal  
Power supplied by 2 AA batteries  
10 function keys plus Shift key (20 total)  
Up, Down, Left, Right movement buttons  
Two select keys  
CD-Audio - Reverse, Forward, Play  
Pause, Headphone Volume  
Computer reset function

### Optional accessories:

External floppy disk drive  
Trackball (infrared)  
Joystick (infrared)  
MIDI In/Out, through (third party)  
Personal RAM or ROM card  
Genlock Expansion module to house  
hard disk drive,  
modem, floppy disk drive  
Keyboard IR interface with trackball  
Keyboard Two player IR interface  
Modem  
Printer



# PCM COMPUTERS - FOR **ALL** YOUR AMIGA NEEDS

**CHEAP DISKS !!!**  
**3.5" DSDD IN BOX OF 10**  
**\$8-00 PER BOX**

**POWERCOPY** - THE POWER TO COPY ALL  
 THE ULTIMATE BACKUP UTILITY **\$30**  
**POWERDEVICE** - HARDWARE TO UNLEASH THE  
 FULL POWER OF POWERCOPY **\$60**  
**BOTH TOGETHER \$80**

**IF YOU THINK YOU HAVE FOUND THE BEST DEAL - LET US BEAT IT!**

PCM520 2.0 Mb A500 RAM exp. with 0.5 Mb **\$180**  
 PCM501 0.5 Mb A500 RAM exp. with 0.5 Mb **\$85**  
 GVP Accel 22MHz 68030/68882/1MB 32bit RAM/SCSI port **\$1750**  
 GVP Impact 500 series II 40Mb Hard Drive !!! **\$980**  
 Amiga Computers, Monitors, Printers, Hard drives, Accelerators, Memory expansions, Repairs,  
 Modifications, Disk drives, Diskettes, Full GVP range - CALL NOW FOR THE BEST DEAL

# PCM COMPUTERS - FOR **ALL** YOUR AMIGA NEEDS

GPO BOX 2363V Melbourne Vic 3001 Phone (03) 822 5873 or 018 322 920 9 am - 9 pm  
 PO BOX 70 Noble Park VIC 3174 Phone (03) 701 0343 FAX (03) 701 0077

## OTHER PCM OUTLETS

Standard Computers 105 Mitchell St Bendigo VIC 3550 Phone (054) 416 157  
 J&S Computers PO Box 198 Mentone VIC 3194 Phone (03) 580 6963  
 Northwest Electronics 5/11 McDougall Rd Sunbury VIC 3429

Amiga A500 Starter Kit / 1 Megabyte RAM	950-00	Epson LX-400 80 Column 9 Pin 180 CPS Printer	300-00
Amiga A2000	1570-00	Epson LQ-400 80 Column 24 Pin 180 CPS Printer	475-00
Amiga A2000 Pro Pack	1670-00	Epson LQ-550 80 Column 24 Pin 180 CPS Printer	580-00
		Citizen 200GX 9 Pin Color Printer	440-00
1084S Stereo Color Monitor	460-00	Citizen GSX-140 24 Pin Color Printer	680-00
Tystar 14" Multisync Monitor	720-00	A500 0.5 Mb RAM Exp / switch / clock	85-00
NBC 3D Multisync Monitor	950-00	A500 2.0 Mb RAM Exp / switch / clock / 0.5 Mb	180-00
3.5" External Disk Drive	165-00	A500 2.0 Mb RAM Exp / switch / clock / 2.0 Mb	340-00
5.25" External Disk Drive	240-00	A500 4.0 Mb RAM Exp / switch / clock / 20 Mb	380-00
		A500 4.0 Mb RAM Exp / switch / clock / 4.0 Mb	595-00
A590 20Mb Hard Drive with 2 Mb RAM	800-00	A2000 8 Mb RAM expansion with 0 Mb	370-00
40 Meg GVP A500 Series II +8	980-00	A2000 8 Mb RAM expansion with 2 Mb	500-00
50 Meg GVP A500 Series II +8	1200-00	SIMM Modules for GVP range 2Mb	180-00
100 Meg GVP A500 Series II +8	1650-00	NEW - A500 INTERNAL Hard Drives	CALL
50 Meg GVP A2000 Series II HC+8	1150-00	Up to 80 MB - Available Soon !!	
80 Meg GVP A2000 Series II HC+8	1230-00	Qtronix Mouse (with microswitches)	50-00
100 Meg GVP A2000 Series II HC+8	1350-00	Why buy a slow emulator? For not a lot more you can have the real thing - with hard drive, floppy and monitor!	
Full GVP Range incl. Accelerators		AT-286, 1 Mb RAM 40 Mb HD Voice Coil, 200W P/S, Monitor, 101 Key Kbd	
Boot Drive, Memory, ROM, NTSC/PAL etc. mods		1.2 Mb or 1.44Mb Floppy, multi I/O	\$1300.00
All Amiga Repairs			

# CDTV Applications

Commodore have managed a world first! There will actually be worthwhile applications on sale at the launch of CDTV in Australia. Andrew Farrell reviews several in this first look at the working player.

Yet another new 'ware' has joined the list of jargon - Shovelware. Amiga programs shovelled across to run as CDTV applications. It sounds nasty, but after playing *Defender of the Crown*, an old favourite game of many early Amiga owners, I was convinced that even these old rehashed titles were a big improvement.

For a start the music is full CD quality stereo sound. Instead of pages of text, you can listen to the soothing tones of a spoken description of the game scenario. The graphics were much the same as before, a small disappointment, but then that's the trade-off for using shovelware. After a few minutes struggling with the infra-red controller, I quickly found the infra-red mouse was essential if you plan to make any progress in the jousting or sword fights.

There will be many other shovelware titles at CDTV's launch, however, the point of this article is to take a closer look at a couple of applications which especially demonstrate the potential of this device.

## Time Table of Science and Innovation

After shovelling *Defender* to one side, I sank my infra-reds into the more meatier *Time Table of History*.

This application uses a hyperengine developed by Xiphias, a company who are also involved in CD applications on MS-DOS and Macintosh machines. The engine provides the designer with a powerful group of program routines for accessing and cross-referencing a large database of information. In this instance, Xiphias have used their own engine to produce several applications for CDTV.

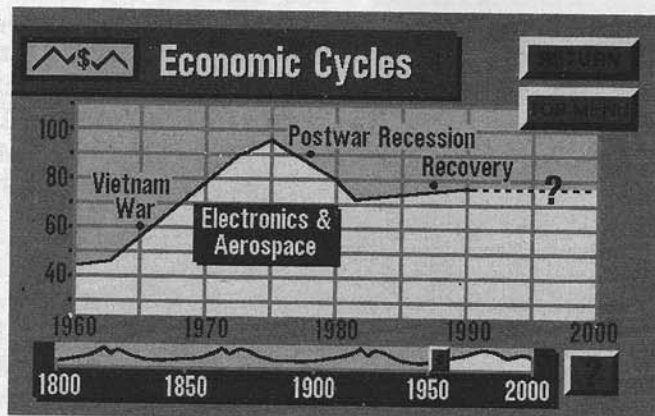
Once again I found this application was easier to use with the mouse. Several time lines of major time periods may be selected. You can then choose major events about which you hear a recorded commentary. To go to a specific event, choose the time period and select from the alphabetic list. Once information about an event is displayed you have a number of options.

Icons down the right side of the screen provide access to additional information. This could include bibliographic references, eyewitness comments, prehistoric time line, altitude of event, electromagnetic spectrum, period table and more. Only icons with information relevant to the current event will appear. Most interesting is the audio/visual icon which means selecting it will display an short presentation of graphics and sound.

One event in particular which grabbed my atten-

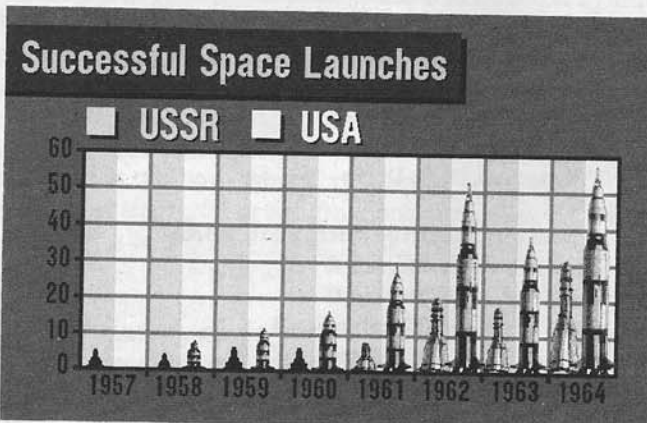
tion was the first space walk. Viewing this event I was able to see a slow animation of the first space walk - a series of HAM images displayed at about one per second. In other animations, such as the shuttle landing the animation is faster, but the accompanying sound is interrupted whilst the CDTV player loads the next few frames. Although a little frustrating, it sure beats a book.

If you see a key word in the text you're viewing which you would like information about, or would like to view additional relating references, you simply select the word. All events associated are listed and you can now move on to a new event. This is



called Hypermedia. It's one of the most powerful research tools you could hope to have.

After playing with the *Time Line* for the best part of an hour I found myself following whatever train of



pictures from *Time Table of Science and Innovation*

thought caught my imagination. The application let me take any direction I liked. A fascinating multimedia work which clearly demonstrated the power of CDTV.

## Other applications

I wasn't able to view many other applications. I had a brief look at the *American Heritage Dictionary*. It added a few useful items beyond the usual function of a dictionary such as the pronounce option which had the Amiga "say" the word in question. The only problem was the rather American robotic sound to the resulting tinny pronunciation.

When you start talking about placing 30,000 articles, more than 9 million words, 2,000 pictures, illustrations and maps all on one compact disc, people sit up and listen. *The Grolier Electronic Encyclopedia* does just that - some 21 volumes of shelf consuming books fit happily onto a single disc.

Of course, the most exciting aspect

of having so much information under your finger tips is the ease at which information can be located. Answers to questions could easily be located using multiple word search capabilities. Add a little hyperword power and the inquisitive mind could well spend hours simply browsing topics of interest. A brilliant learning tool for children and adults.

## Future developments

A number of key software publishers have committed to making CDTV applications happen. A few notables include: Spectrum Holobyte, Merit, Icom Simulations, Xiphias, Applied Potical Media, Virgin, Mirrorsoft, Tiger Media, Free Spirit, Interplay and Dicus.

Recently a few other big names joined the ranks - developers and publishers - LucasFilm, Guinness, Psygnosis, Cinemaware, Accolade and Music Sales. Guinness plan on releasing the *Guinness CDTV Disc of Records*. Text will be enriched with

the addition of audio, video, still pictures and animation. There will also be new sections covering Tours, Guides, Games and more.

LucasFilm is scheduled to contribute three titles: *Indiana Jones*, *Loom*, and their new graphic adventure, *The Secret of Monkey Island*. Accolade is planning a special golf simulation feature *The Golfer of the Century*, Jack Nicklaus,

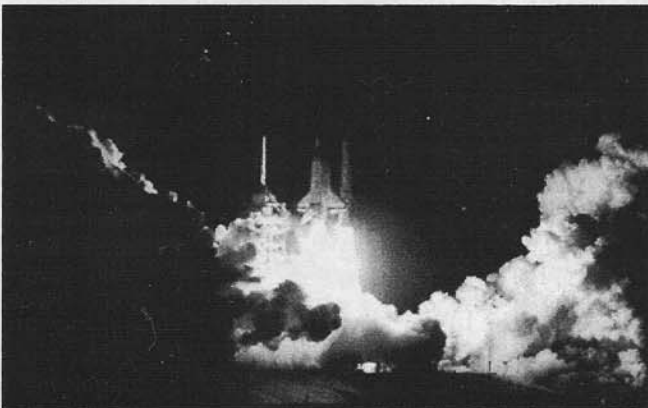
## Psygnosis Break-Through

Ian Hetherington, joint-boss of Psygnosis had a few things to say about the whole 'interactive-movie' concept. He gets away with them because Psygnosis have made what they consider to be the first real CD-interactive movie / simulation.

As a games company, Psygnosis are confident they can do better than newcomers with movie experience. Concentrating on the best way to deliver degrees of interaction during a continuous running adventure, the company has produced a combat game which pumps out 20 frames per second in a resolution of 320 x 200 in 32 colours. Movie sequences link interactive portions which vary from 10% to 100% player control. The game features an advanced jet fighter, and complex fractal landscapes. Games like this will be easily adapted to run on any CD based platform. □

who will challenge CDTV golfers in one of his most famous courses, Muirfiel Village. The course will be accurately recreated from 8000 digital photographs of the actual course.

Cinemaware is producing a special pro football game, where play is augmented by real coaching opportunities. The user will be able to test offensive strategies against various types of defence, select players based on opponents' strengths and weaknesses and develop their own playbook. On gameday, *TV Sports Football*'s realism will include sideline interviews, instant replay and cheering grounds. Psygnosis is developing improved graphics techniques for their arcade games even superior to the *Shadow of the Beasts* series. □



# WORLD OF COMMODORE

**July 12, 13 & 14, 1991**  
Sydney Convention & Exhibition Centre  
Darling Harbour

## AMIGA

SEE THE  
**CDTV  
PLAYER**  
FOR THE  
FIRST TIME!

**FANTASTIC  
BARGAINS!**

### World of Commodore/Amiga will capture your imagination!

- ★ See the CDTV for the first time in Australia
- ★ Try new products from local and international suppliers
- ★ Preview the latest software titles – thousands to choose from!
- ★ Pick up computer tips and tricks from the experts
- ★ Attend informative seminars — free with admission!
- ★ Browse through an enormous selection of products
- ★ Buy everything you need at fantastic prices

Save money, have fun and learn from the computer experts.  
Plan to attend Australia's first World of Commodore/Amiga.

**Sydney Convention & Exhibition Centre**  
Darling Harbour, Sydney, Australia  
**July 12, 13 & 14, 1991**

Friday & Saturday 10 am – 6 pm, Sunday 10 am – 5 pm  
**Adult \$9, Child \$4, Pensioner \$4, Family \$18**

Admission prices include seminars.  
Produced in association with  
Commodore Business Machines Pty Ltd



# DAZZLE YOURSELF

If you ever wanted to impress your friends about the amazing Amiga, then this is your chance.

WE HAVE PLANNED  
THE BEST COMPUTER  
TIME YOU HAVE EVER  
EXPERIENCED!

See ...



by Commodore

And ...

• **VIDEOTOASTER** by Newtek

**BRING YOUR  
FRIENDS AND  
YOUR FAMILY**

**\$1 OFF COUPON  
OFFER!**

**CUT COUPONS OUT  
BELOW AND PRESENT  
AT ENTRY.** One coupon per person



Present this coupon at the show entrance for \$1.00 off the regular admission price. Coupon is not valid with any other offer.

**REGULAR ADMISSION PRICES**

Adult \$9, Child \$4, Pensioner \$4, Family \$18  
Seminars are included with admission.

**World of Commodore/Amiga**  
Sydney Convention & Exhibition Centre  
Darling Harbour • Sydney • Australia

**July 12, 13 & 14, 1991**

Friday & Saturday 10:00 am – 6:00 pm • Sunday 10:00 am – 5:00 pm  
★ **HARDWARE • SOFTWARE • ACCESSORIES • SEMINARS • BARGAINS** ★



Present this coupon at the show entrance for \$1.00 off the regular admission price. Coupon is not valid with any other offer.

**REGULAR ADMISSION PRICES**

Adult \$9, Child \$4, Pensioner \$4, Family \$18  
Seminars are included with admission.

**World of Commodore/Amiga**  
Sydney Convention & Exhibition Centre  
Darling Harbour • Sydney • Australia

**July 12, 13 & 14, 1991**

Friday & Saturday 10:00 am – 6:00 pm • Sunday 10:00 am – 5:00 pm  
★ **HARDWARE • SOFTWARE • ACCESSORIES • SEMINARS • BARGAINS** ★



Present this coupon at the show entrance for \$1.00 off the regular admission price. Coupon is not valid with any other offer.

**REGULAR ADMISSION PRICES**

Adult \$9, Child \$4, Pensioner \$4, Family \$18  
Seminars are included with admission.

**World of Commodore/Amiga**  
Sydney Convention & Exhibition Centre  
Darling Harbour • Sydney • Australia

**July 12, 13 & 14, 1991**

Friday & Saturday 10:00 am – 6:00 pm • Sunday 10:00 am – 5:00 pm  
★ **HARDWARE • SOFTWARE • ACCESSORIES • SEMINARS • BARGAINS** ★

**\$1 OFF**

**\$1 OFF**

**\$1 OFF**

**YOU OWE IT TO YOUR KIDS**

# Initial CDTV applications library

A comprehensive selection of topics will be available on CD applications including reference, education, children's, women's, sports and leisure, self-improvement, adventure and simulations. The titles range from interactive versions of the *King James Bible* and the *World Vista Atlas*, to entertainment titles such as *Battle Chess*, *Sim City*, and *Sword of Excalibur*.

CDTV represents a major advance in technology and capability over any commercially available entertainment format, combining audio, video, graphics and computer interactivity into a single, Compact Disc-based system. The storage capacity of the Compact Disc is enormous -- the equivalent of more than 250,000 pages of typewritten text. For example, the complete *American Heritage Encyclopedic Dictionary*, fully illustrated, will fit on a single disc.

This storage capacity enables developers to engineer products which combine unparalleled levels of interactivity with vivid graphics and CD sound. The key is interactivity and immediate access. For example, the recipes in the CDTV version of the popular *Silver Palate* cookbook series (to be retailed as *New Basics Electronic Cookbook*) by Xiphias, provides the cook with step-by-step instructions, alternate seasonings, realistic "mouth-watering" images of the meal in progress, and the ability to recalculate portion sizes instantly. If the cook is planning a dinner

party for 10 and then decides to invite two more guests, the program will adjust the ingredient amounts and cooking times accordingly. In addition, the program will "suggest" menus based on whatever combination of ingredients happen to be in the house at mealtime, as well as direct the cook to low-sodium or low-cholesterol recipes if desired.

Tiger Media's *Airwave Adventure -- The Case of the Cautious Condor*, is the first original entertainment title developed specifically for multimedia compact disc. It's an adult murder/mystery set in the 1930's, where the "player" has 20 minutes and 1500 possible paths to search rooms and interview characters in order to solve who had the means, motive and opportunity to "do the deed."

Discis has developed a variety of children's stories, including *Cinderella* and *The Tale of Peter Rabbit*, featuring the author's original illustrations and text, with added music and sound effects. The user has the option of hearing real human speech present the text orally with the words highlighted in phrase groups common to normal speech and speaking patterns. In addition, the user can point the remote control and click on a specific word and have it pronounced for them, click again for a definition, and again to have the word said in an alternate language (e.g., Spanish) if desired.

These first 35 titles represent just the beginning of the development of the CDTV library. The company and other developers plan to introduce additional titles on a regular basis, including *Murder Anyone?*, *North Polar Expedition* and *Family Medical Advisor*, among others. Several of the world's premier applications developers such as LucasFilm, Accolade, Cinemaware, Sierra On-Line, Virgin Mastertronic and Spectrum Holobyte have products in development for CDTV.

## PRELIMINARY CDTV TITLES, LAUNCH, 1991

TITLE	DEVELOPER		
HOME REFERENCE		All Dogs Go to Heaven (Electric Crayon)	Merit Software
Gardenfax - Houseplants		EDUCATION	
King James Bible	Intersearch	North Polar Expedition	Virgin Mastertronic
World Vista Atlas	Animated Pixels	Fun school (3 discs for different ages)	Mandarin
	Applied Optical Media	COOKING	
The American Heritage Encyclopedic Dictionary	Xiphias	New Basics Electronic Cookbook (Silver Palate cookbook series)	Xiphias
Family Medical Advisor	Digita	THINKING GAMES	
Time Table of Science & Innovation	Xiphias	Battle Chess	Interplay
Time Table of Business & Politics	Xiphias	Airwave Adventure -- The Case of the Cautious Condor	Tiger Media
Illustrated Works of Shakespeare	Animated Pixels	Defender of the Crown	Cinemaware
Japan World	TopClass Tech	Classic Board Games	Merit Software
CHILDRENS' CLASSICS		Many Roads to Murder	Vent
Cinderella	Discis	Murder Anyone?	Vent
Tale of Peter Rabbit	Discis	ADVENTURE AND ARCADE GAMES	
Scary Poems for Rotten Kids	Discis	Excalibur	Virgin Mastertronic
CHILDRENS' STORIES		Space Quest III	Sierra-on-Line
A Long Hard Day at the Ranch	Discis	Pacmania	Domark
Moving Gives Me a Stomach Ache	Discis	Future Wars	Interplay
The Paper Bag Princess	Discis	Xenon II	Spectrum Holobyte
CHILDRENS' FUN		SIMULATION GAMES	
Animated Coloring Book	Gold Disk	Sim City	Spectrum Holobyte
Snoopy	The Edge	Falcon	Spectrum Holobyte

# Phoenix

## MOTHERBOARD

**Amiga 1000 Strikes Back!**

It is well recognised that the Amiga 1000 was a well designed machine. The way the keyboard tucked away under the casing, the pleasant slim design, smooth lines and quality feel. Even the tune it played when you powered up. Can the old A1000, which so warmed our hearts in the early days, keep up with Amiga's improving architecture? Scott Castledine contributed this complete review and guide to getting the legendary Phoenix board into your A1000.

We've all read the stories about how the A1000 would have problems keeping up with the new Amigas. Owners were going to face the prospect of an outdated machine - especially when the newer Amiga 500s and 2000s were to receive the Enhanced Chip Set (ECS) and operating system. The new Agnus chip wouldn't physically fit in the A1000! This was the first time I had really felt my Amiga was going to lag behind.

A large number of us were understandably upset the day Commodore announced the A1000 was to be discontinued. As did most users, I felt it was the best of the Amigas and filled the gap between the 500 and the 2000 perfectly! The article I read appeared on Megadisc. It went on to talk about a replacement motherboard designed by Andrew Wilson, the developer of the popular Proton memory boards.

The list of features offered by the Phoenix board was impressive indeed. Not only did the list state full ECS support, but went on to itemise some features that fulfilled quite a few A1000 owners' "wish lists". It included two megabytes of RAM on the Motherboard, with an option to add another eight megabytes on an internal daughterboard for a total of ten!

Formerly, the A1000 had a maximum memory limit of 8.5 megs.

Because the new obese Agnus chip was to be included as part of the upgraded board, the first megabyte of RAM would be configured as CHIP RAM. This is memory directly accessible by the custom chips without interrupting the 68000 for graphics and sound manipulation. Thus larger samples and graphics bit maps can be dealt with.

Other features included a real time, battery-backed clock/calendar; now that was a nice feature I had always desired in the A1000. As I found out later though, SETCLOCK LOAD worked exactly as in an A500 or A2000, but when I ran Nic (Not Andrew) Wilson's SYSINFO program, it didn't show an internal clock existed.

There were to be sockets for up to three KICKSTART ROMs (or custom EPROMs) on the Motherboard which you could switch between, an internal drive socket allowing DF1: to be mounted internally (in a larger case of course), a switch option allowing you to boot from a drive other than DF0:, a software switchable audio filter like the A500/2000s, a socket for a 68881/2 math coprocessor, a 2000-type video slot for Flicker-Fixers, genlocks or a PAL Video Toaster (maybe), and finally a SCSI port on the board for hard disks, CD ROM and tape streamers. Later on, an option to purchase an inch-high 40 megabyte internal hard disk was added.

I was so impressed by what the Phoenix board seemed to offer that I sent off my deposit that very afternoon. If I was to show support for the Phoenix Motherboard, then I wanted to be one of the first to get one. As it was, I slotted in at number 82. This proved there was some good support and many others as interested as I was. Early depositors secured a 20% discount if Phoenix received their deposits before the end of November. Later, this deadline was extended to the end of December.

## The Wait...

The article predicted quite a short wait. To quote, "Place a \$100 deposit on the board with us, and in less than three months, you could have a new computer sitting on your desk". I calculated a delivery of around March 1990, April at the latest. I was wrong. Through no real fault of Phoenix Microtechnologies Pty Ltd, there

seemed to be one problem after another, putting the delivery further and further back. Each letter from Phoenix would predict another shipment date, they would come and go without anything coming to fruition. Some of the difficulties reported in their thankfully quite frequent updates included a legal wrangle with Commodore over warranties. Apparently Commodore were figuring they would be responsible for service for some reason. At least that's how I read it.

The next problem caused by the warranties discord was an unwillingness by Commodore to supply the custom chips to Phoenix in the quantities required. Then, Phoenix needed to purchase a virtual memory CAD package for the circuit layout and design as the existing system couldn't cope. Finally, of course, there needed to be extensive testing and any hardware problems rectified.

The wait was so long, Phoenix offered depositors a refund on their money if they liked. It was for those that decided to buy an A2000 or 3000 instead of waiting for the board. Well, it wasn't a "refund", but an opportunity to put their deposits towards other Phoenix products and not be obliged to buy the board when it was finally ready. I was beginning to think I would never see the Phoenix Board.

## Finally, Arrival

On 27 January 1991, I received a letter from Phoenix informing me of an impending dispatch of my board in three weeks - would I kindly forward the balance. I sent the cheque off the same day and waited. It ended up taking almost six weeks but on March 8, 1991, I received the Phoenix motherboard! It arrived at 9am by Express Courier.

My first impression was how professional the packaging looked, a box emblazoned with the Phoenix logo. I opened the box and wasn't disappointed. The board was well packed in foam and a static-free bag. Included was an instruction manual with a plastic cover, a bag of extra jumpers and option hardware (drive and KICKSTART switches), and two disks - "PHOENIX BOARD V1.2" boot/diagnostic disk and "PHOENIX BOARD SCSI" boot disk, both with printed labels.

I started to read the instructions which looked comprehensive and well organized. The first chapter presents

*Continued on p25*



Phone:  
(02) 979 5833  
Fax:  
(02) 979 6629

# WE HAVE

## GAMES

A.P.B.	\$49.95
ACTION FIGHTER	\$69.95
ACTION STATIONS STRATEGY	\$69.95
ADVANCED TACTICAL FIGHTER II	\$69.95
ALL DOGS GO TO HEAVEN	\$69.95
AMOS GAME CREATOR	\$125.00
ANARCHY	\$59.95
APPRENTICE	\$59.95
ASTATE	\$49.95
ASTRO MARINE CORPS	\$69.95
ATOMIX	\$49.95
AWESOME + T-SHIRT	\$79.95
BADLANDS	\$69.95
* BARDS TALE III	\$59.95
BAT	\$69.95
BATMAN - CAPED CRUSADER	\$45.00
BATTLE SQUADRON	\$59.95

### MAL'S SEAL OF APPROVAL

☆☆☆ GODS ☆☆☆

☆☆ WONDERLAND ☆☆☆

PGA TOUR GOLF ☆ QUEST FOR GLORY II  
BARDS TALE III (FOR THE BT ADDICTS)

BATTLE VALLEY	\$49.95
BATTLESHIPS	\$19.95
BERLIN - EAST V WEST	\$59.95
BATTLE STORM	\$79.95
BIO CHALLENGE	\$49.95
BLITZKRIEG STRATEGY	\$79.95
BLOCKBUSTER PAK - SSI	\$59.95
BLOODWYCH	\$59.95
BLUE ANGEL 69	\$49.95
BLUE MAX	\$69.95
BORODINO	\$49.95
BOULDERDASH CONSTRUCTION SET	\$16.95
BRAIN SCRAMBLER - JIGSAW	\$29.95
BREACH 2	\$59.95
B.S.S. JANE SEYMOUR	\$69.95
BUBBLE BOBBLE - 2 CAN PLAY	\$59.95
BUCK ROGERS C/DOWN DOOMSDAY	\$49.95
CONQUESTS OF CAMELOT (SIERRA)	\$59.95
CARTHAGE	\$69.95
CARVE UP	\$69.95
CASTLE WARRIOR	\$69.95
CHAMPIONS OF KRYNN	\$54.95
CHARIOTS OF WRATH - SPECIAL	\$49.95
CHESS CHAMPION 2175	\$79.95
CHESS PLAYER 2150	\$69.95
CHRONO QUEST II	\$79.95
CINEMAWARE COMP - 3 MORE WORLDS (SDI+DEFENDER OF CROWN+KING OF CHICAGO)	\$59.95
CODENAME ICE MAN (SIERRA)	\$59.95
COLONEL'S BEQUEST	\$69.95
COLORADO	\$59.95
COMMANDOS PACK	\$59.95
CONTACT	\$59.95
CRAZY SHOT - USES GUN/MOUSE	\$49.95
CRIBBAGE & GIN KING	\$59.95
CYBERBALL	\$49.95
CYBERWORLD	\$59.95
DAMOCLES	\$49.95
DANGER FREAK	\$59.95
DARIUS +	\$49.95
DARK CENTURY	\$59.95
DARK SIDE	\$49.95
DAS BOOT - U-BOAT SIM - GREAT!	\$69.95
DAY OF THE PHAROH	\$54.95
DAY OF THE VIPER	\$59.95
DEBUT	\$59.95
DEMONS TOMB	\$54.95
DEMONS WINTER	\$45.95
DR. PLUMMET'S HOUSE OF FLUX	\$49.95
DR. DOOMS REVENGE - SPECIAL	\$49.95
DRAGON FLIGHT	\$79.95
DRAGON SPIRIT - SPECIAL	\$39.00

DRAGONSTRIKE	\$59.95
DREAM ZONE	\$39.95
DUCK TALES - QUEST FOR GOLD	\$59.95
DUNGEON MASTER 1 MEG ONLY	\$59.95
DYNASTY WARS	\$59.95
DYER 07	\$49.95
EMPEROR OF THE MINES	\$49.95
ESCAPE - From planet robot monsters	\$49.95
ESKIMO GAMES	\$49.95
EUROPEAN DREAMS - COMPILATION	\$59.95
EXTRA TIME - FOR KICKOFF	\$59.95
F-16 FALCON	\$59.95
F-19 STEALTH FIGHTER	\$89.95
FA18 INTERCEPTOR	\$45.95
FALCON MISSION DISK 2	\$49.95
FACES TRIS III	\$59.95
FIENDISH FREDDY - SPECIAL	\$49.00
FIGHTER BOMBER MISSION DISK	\$59.95
FIRE & FORGET II	\$59.95
FIST OF FURY COMP - SHINOBI-DYNAMITE	
DUX-NINJA WARRIORS-DOUBLE DRAGON	\$59.95
FLIPPIT + MAGNOSE	\$59.95
FLOOD	\$49.95
FORGOTTEN WORLDS - SPECIAL	\$49.95
FUSION	\$45.00
FUTURE BASKETBALL	\$59.95
FUTURE BIKE (SIM)	\$39.95
FUTURE CLASSICS - COMP	\$59.95
FUTURE DREAMS - COMP	\$59.95
GLOBULOUS	\$59.95
* GODS	\$CALL
GOLD FEVER PACK	\$49.95
GOLD OF THE AZTECS	\$59.95
GOLDRUSH - SIERRA	\$61.95
GRAND NATIONAL (Horses)	\$49.95
GRAND SLAM TENNIS	\$16.95
GREMLINS 2	\$59.95
HARD DRIVIN' 2	\$69.95
HARLEY DAVIDSON BIKES	\$59.95
HARPOON	\$69.95
HEWSONS PREMIER COLLECTION	\$49.95
HILLSFAR - DUNGEONS & DRAGONS	\$45.95
HOLE IN ONE GOLF - MINI-144 HOLE	\$44.95
HONDA RVF - PLAYS WELL	\$49.95
HOYLES SOLITAIRE VOL 2	\$69.95
HOYLES SOLITAIRE VOL 1	\$59.95
HUNT FOR RED OCTOBER	\$44.95
* IMPERIUM - NEIL'S NEW TEASER	\$49.95
INDIANA JONES LAST CRUSADE	\$49.95
INDY 500	\$49.95
INFESTATION	\$59.95
INTERPHASE	\$59.95
ISHIDO	\$69.95
JOKER X-WORD	\$19.00
JUDGE DREDD	\$59.95
JUMPING JACKSON	\$49.95
KEEF THE THIEF - ADVENTURE	\$49.95
KELLY X	\$19.95
KENNY DALGLISH SOCCER	\$49.95
KHALAAN	\$59.95
KICK OFF	\$49.95
KICK OFF - EXTRA TIME	\$59.95
KID GLOVES	\$69.95
KILLING GAME SHOW	\$69.95
KINGS QUEST I	\$49.95
KINGS QUEST II	\$69.95
KINGS QUEST III	\$69.95
KONIX SPEEDKING JOYSTICK - GREAT	\$39.95
LEGEND DJEL	\$49.95
LEGEND OF FAERGAIL - MAL LIKES IT	\$69.95
LEISURE SUIT LARRY	\$49.95
LEISURE SUIT LARRY II	\$49.95
LEISURE SUIT LARRY III	\$59.95
LEMMINGS - DARE YOU TO PUT IT DOWN	\$69.95
* LITTLE COMPUTER PEOPLE	\$19.95
LOST PATROL	\$59.95
LOTUS ESPRIT TURBO CHALLENGE	\$69.95
M1 TANK PLATOON	\$89.95
MANHUNTER - NEW YORK (Sierra)	\$49.95

MANHUNTER 2 (San Francisco)	\$59.95
MANNIX	\$59.95
MATRIX MARAUDERS	\$59.95
MAYDAY SQUAD	\$49.95
MICROPROSE SOCCER	\$59.95
MIDNIGHT RESISTANCE	\$59.95
MIDWINTER	\$79.95
MIGHT & MAGIC II	\$59.95
MIND GAMES	\$69.95
MR. HELI - SPECIAL	\$49.95
MURDER	\$59.95
MYSTICAL	\$69.95
NARCO POLICE	\$59.95
NEUROMANCER	\$59.95
NIGHT BREED ACTION	\$59.95
NIGHT HUNTER	\$59.95
NITRO	\$59.95
NUCLEAR WAR	\$49.95
OCEAN ACTION PACK	\$59.95
OIL EMPORIUM	\$54.95
ONSLAUGHT	\$49.95
OPERATION COMBAT	\$79.95
OPERATION HARRIER	\$59.95
OPERATION STEALTH	\$59.95
ORIENTAL GAMES	\$69.95
OVERRUN	\$49.95
PANG	\$59.95
PARADROID	\$59.95
PERSIAN GULF INFERNO	\$69.95
* PGA TOUR GOLF	\$59.95
PHANTASM	\$29.95
PHASER GUN - SPECIAL	\$39.95
PICTIONARY	\$45.95
PIPE MANIA	\$59.95
PLANET PROBE	\$49.95
PLOTTING	\$59.95
POLICE QUEST	\$61.95
POLICE QUEST 2	\$61.95
POOL OF RADIANCE (D&D)	\$64.95
POPULOUS	\$39.95
POWERDROME	\$39.95
POWERDRIFT	\$59.95
POWERMONGER	\$49.95
PRINCE OF PERSIA	\$64.95
PRO TENNIS TOUR 2	\$69.95
PROJECT YLE	\$45.95
PUFFY'S SAGA	\$59.95
PURPLE SATIN DAY	\$49.95
PUZZNIC - ADDICTIVE	\$59.95
PSYCHO	\$49.95
QUADRALIEN	\$69.95
QUARTZ	\$49.95
* QUEST FOR GLORY II	\$69.95
RAINBOW WARRIOR	\$59.95
RALLY CROSS	\$49.95
RED LIGHTNING	\$54.95
RED STORM RISING	\$69.95
REALM OF THE TROLLS	\$61.95
RICK DANGEROUS 2	\$59.95
RISK	\$29.95
ROADWARS	\$19.95
ROBOCOP 2	\$59.95
ROGUE TROPPER	\$64.95
RUFF AND REDDY	\$39.95
RVF HONDA	\$49.95
SAFARI GUNS	\$49.95
SCRAMBLE SPIRITS	\$49.95
SHADOW OF THE BEAST II	\$79.95
SIM CITY	\$84.95
SIM CITY TERRAIN EDITOR	\$34.95
SIM CITY GRAPHICS 1 - ANCIENT CITIES	\$59.95
SIM CITY GRAPHICS 2 - FUTURE CITIES	\$59.95
SIMILCRA	\$49.95
SKIDOO	\$39.95
SKYCHASE	\$39.00
SLEEPING GODS LIE	\$59.95
SOLITAIRE - VOL 1 SEA HAVEN	\$39.95
SOLITAIRE - VOL 2 CALCULATION	\$39.95
SOLITAIRE - VOL 3 ACCORDION	\$39.95

# AMIGA 3000's

Phone:  
(02) 979 5833  
Fax:  
(02) 979 6629



SPACE RACER	\$49.95
SPACE SCHOOL	\$39.95
SPACE QUEST	\$44.95
SPACE QUEST II	\$59.95
SPACE QUEST III	\$59.95
SPY V SPY	\$16.95
SPY V SPY - ARCTIC ANTICS	\$16.95
SPY V SPY - ISLAND CAPER	\$16.95
STAR BREAKER	\$49.95
STAR CURSOR J/S - 3 YR GUARANTEE	\$54.95
STEEL	\$49.95
SUMMER OLYMPIAD	\$29.95
STORM ACROSS EUROPE	\$49.95
STRIDER II	\$59.95
STUN RUNNER	\$69.95
SUPER SQWEEK	\$59.95
* SUPREMACY - NEIL LOVES IT	\$69.95
SWIV - SILKWORM SEQUEL	\$69.95
T.M.N. TURTLES	\$69.95
TEAM YANKEE	\$69.95
THE BIG ONE - LOTTO SYSTEMS	\$19.95
THE POWER PACK	\$79.95
THE COLONELS BEQUEST	\$59.95
THE HOUND OF SHADOW	\$49.95
THE MUNSTERS	\$49.95
THEIR FINEST HOUR - Battle of Britain	\$59.95
THEME PARK MYSTERY	\$59.95
THRILL OF WINNING VOL II	\$59.95
THUNDERSTRIKES	\$59.95
TIE BREAK	\$59.95
TIME	\$69.95
TIME MACHINE	\$59.95
TORVAK WARRIOR	\$69.95
TOTAL ECLIPSE	\$49.95
TRACKSUIT MANAGER - SOCCER	\$39.95
TURBO OUTFUN	\$49.95
TV SPORTS FOOTBALL	\$69.95
TOM AND THE GHOST	\$69.95

## ☆ SPECIALS BOX ☆

DRAW 2000 \$69.95

MODELLER 3-D \$69.95

FA-18 INTERCEPTOR \$25.00

TOURNAMENT GOLF	\$59.95
TWYLYTE	\$16.95
TURRICAN II	\$69.95
ULTIMA V	\$79.95
ULTIMA IV	\$79.95
UNREAL - GREAT GRAPHICS	\$59.95
VAXINE	\$59.95
VENUS FLYTRAP	\$59.95
VOYAGER	\$59.95
WAR GAME CONSTRUCTION SET	\$49.95
WARLOCK - THE AVENGER	\$59.95
WHITE DEATH STRATEGY	\$79.95
WICKED	\$59.95
WINGS OF DEATH	\$49.95
WINNERS ITALY 1990 SOCCER	\$49.95
WINGS OF FURY	\$69.95
WOLF PACK	\$79.95
* WONDERLAND	\$79.95
WORLD CHAMP SOCCER	\$69.95
WORLD CUP COMP	\$69.95
WORLD TOUR GOLF	\$45.95
WRATH OF THE DEMON	\$89.95
XENOMORPH	\$59.95
XYBOTS	\$45.95
YOGI'S GREAT ESCAPE	\$39.95
ZAK MC KRACKEN	\$52.95
ZANY GOLF - NEAT GAME	\$49.95
ZOMBIES	\$59.95

## PRODUCTIVITY

3-D PROFESSIONAL (WITH VIDEO)	\$350.00
A TALK 3 - SPECIAL	\$69.95
ALL IN ONE - BY GOLD DISK - NEW	\$99.95
A-MAX - SPECIAL III	\$149.95

AMIGA POST CODE	\$49.95
AMIGA VISION - SPECIAL	\$150.00
AMOS	\$125.00
ART DEPT PROFESSIONAL	\$349.00
ART PARTS - FOR DPAINT 3	\$49.95
ASSEMBRO	\$149.00
AUDIO ENGINEER S/WARE/H/WARE	\$CALL
BROADCAST TITLER V2 PAL - the best!	\$450.00
CONTACT	\$59.95
CROSS DOS - V4.0	\$64.95
DELUXE MUSIC CONSTRUCTION SET	\$99.00
DELUXE PAINT III	\$99.00
DELUXE PHOTO LAB (POSTERS TOO)	\$99.00
DELUXE PRINT II	\$99.95
DELUXE VIDEO III	\$99.95
DESKTOP BUDGET - SPECIAL	\$49.95
DIGIPAIN 3 *	\$135.00
DIGIVIEW GOLD 4	\$269.00
DIRECTOR V.2	\$189.00
DISTANT SUNS	\$99.95
DIRECTORY OPUS VER 2 - HOT	\$49.95
DRAW 2000 - SPECIAL	\$69.95
DYNACADD	\$CALL
DYNACADD DEMO	\$15.00
EASY LEDGERS (WITH JOB COSTING)	\$499.00
EASY LEDGERS ACCOUNTING	\$375.00
ECLIPS - PRO DRAW/PAGE CLIP ART	\$139.00
ELECTRIC THESAURUS	\$69.95
ELECTRONICS DEBTORS SYSTEM	\$299.00
FLASHBACK - HD BACKUP - NEW	\$79.95
GOLD DISK TYPE - DECORATIVE	\$79.95
GOLDSPELL 2	\$44.95
G.P. TERM - TERMINAL PROGRAM	\$99.00
HAM IT UP - WORKS WITH DPAINT	\$69.95
HEADLINE FONTS 1	\$99.00
HEADLINE FONTS 2	\$99.00
HEADLINE FONTS SUB	\$99.00
HOME BUILDERS CAD	\$299.00
IMAGINE - HOT - NEW - RAYTRACING	\$399.00
INTROCAD	\$99.00
KARA ANIM FONTS	\$79.95
KINDWORDS	\$69.00
LATTICE C V5	\$399.00
MAC TO DOS	\$189.00
MODELLER 3D - SPECIAL	\$69.95
OUTLINE FONTS FOR PRO PAGE	\$269.00
PAGESTREAM FONTS VOL 1.1	\$59.95
PAGESTREAM V2.0	\$299.00
PHOTON PAINT V2 - HAM PAINT	\$199.00
PRINTMASTER ART GALLERY 1	\$49.95
PRO VIDEO FONTS (SET 2)	\$149.00
PROFESSIONAL DRAW V2.0*	\$275.00
PROFESSIONAL PAGE - SPECIAL	\$295.00
PROF PAGE - STRUCTURED CLIPART	\$79.95
PROFESSIONAL PAGE V 2 + VIDEO	\$450.00
PROWRITE V3.0	\$199.00
PROWRITE - GERMAN DICTIONARY	\$49.95
PROWRITE - PROFONTS 1 (extra fonts)	\$49.95
PROWRITE - PROFONTS 2 (extra fonts)	\$49.95
QUARTERBACK (HD BACKUP)	\$99.00
QUARTERBACK TOOLS	\$99.00
QUICKWRITE - WORD PRO - good one	\$99.95
SCENE GENERATOR	\$74.95
SEASONS & HOLIDAYS CLIP ART	\$49.95
SPRITZ PAINT PROG	\$99.95
SUPERBACK	\$99.95
SYSTEM 3 (ACCOUNTS)	\$129.00
THE ART DEPARTMENT	\$129.00
THE DIRECTOR	\$99.00
THE OFFICE - GOLD DISK	\$399.00
TV TEXT PROFESSIONAL	\$259.00
ULTRA CARD PLUS	\$145.00
VIDEO TOOLS	\$299.00
VIDI AMIGA F/GRABBER B/W LO-RES	\$399.00

WALT DISNEY ANIMAT'N STUDIO - Hot \$249.00

## MUSIC

BARS AND PIPES	\$199.00
BARS AND PIPES PROFESSIONAL	\$499.00
BARS AND PIPES EXTRA MODULES	\$CALL
DELUXE MUSIC CONSTRUCTION SET	\$99.95
DR T'S COPYIST APPRENTICE	\$149.00
DR T'S COPYIST DTP	\$449.00
DR T'S PHANTOM (SYMPT SYNCH)	\$CALL
DR T'S TIGER CUB	\$119.00
FUTURE SOUND - (STEREO DIGITISR)	\$299.00
HARMONI	\$149.95
KAWAI FUN LAB KEYBOARD - \$100 off	\$895.00
KEYBOARD EDITORS	\$CALL
MASTER SOUND (MONO DIGITIZER)	\$89.95
MIDI MAGIC	\$299.00
MIDI INTERFACE	\$89.95
MUSIC X - STILL THE BEST	\$299.00
MUSIC X JUNIOR	\$CALL
PERFECT SOUND 3.0	\$199.00
SONIX 2.0 - MUSIC	\$99.00
SOUND EXPRESS - (STEREO DIGITR)	\$129.00

## BOOKS

AMIGA 3D GRAPHICS PROGRAMMING	\$49.95
AMIGA BASIC INSIDE & OUT	\$49.95
AMIGA C FOR BEGINNERS	\$49.95
AMIGA C FOR Advanced Programmers	\$69.95
AMIGA DESKTOP VIDEO GUIDE	\$49.95
AMIGA DISK DRIVES INSIDE & OUT	\$49.95
AMIGADOS INSIDE & OUT	\$49.95
AMIGADOS QUICK REF GUIDE	\$29.95
AMIGA FOR BEGINNERS	\$39.95
AMIGA GRAPHICS INSIDE & OUT	\$49.95
AMIGA HARDWARE MANUAL	\$49.95
AMIGA MACHINE LANGUAGE	\$49.95
AMIGA MORE TRICKS & TIPS	\$49.95
AMIGA PROGRAMMERS HANDBOOK	\$54.95
AMIGA ROM KERNEL LIBS & DEVICES	\$59.95
AMIGA ROM KERNEL REF MANUAL	\$59.95
AMIGA SYSTEM Programmers Guide	\$69.95
AMIGA TRICKS & TIPS	\$39.95
AMIGA BASIC ADVANCED	\$34.95
AMIGA BASIC MANUAL	\$29.95
* AMIGAVISION HANDBOOK	\$49.95
* QUEST FOR CLUES VOL II	\$39.95
* QUEST FOR CLUES VOL III	\$39.95
SIERRA & OTHER HINT BOOKS	

## G'DAYS

*HI TO LINDSAY DAY WHO  
DID SUCH A GREAT JOB  
AND TOOK SO MUCH FLAK  
WHILE FILMING AT THE  
SHOP.*

*HI TO FRED WHO ACTED  
(?) AS A CUSTOMER AT  
THE TIME.*

*G'DAY ALSO TO  
GOODWOOD ISLAND  
&  
GROOTE EYELAND*

**ON DISPLAY, ALWAYS**

**SHOP 9 AKUNA LANE - P.O. BOX 879, MONA VALE 2103**

## HARDWARE & ACCESSORIES

Amiga 500 Video Packs	\$499.00	Citizen 200X Colour 9 Pin Printer 8	\$475.00
Amiga 500 Video Add On Packs	\$699.00	Star LC24-200 Colour 24 Pin Printer *	\$750.00
Amiga 500 Music Packs	CALL	Citizen CSX-140 Colour 24 Pin Printer *	\$799.00
Amiga 500 Music Add On Packs	\$399.00	Canon Bubble Jet Printer	\$699.00
Amiga 500 Starter Kit with Intro Video Tutorial with Extra 18 Programs	\$850.00	* = All printers come with Free printer cable.	
Amiga A590 Hard Drive	CALL	Amiga 3000's 100mb or 40mb	\$CALL
Amiga A590 Hard Drive with 2MB Ram	CALL	Amiga Deluxe Kit	\$1099.00
*** Call About Larger Hard Drives ***			
Amiga A501 Ram Expansion & Clock	\$145.00		
Amiga 1010 External 3.5" Drive	\$165.00		
Amiga 2000 - Special Price	\$1499.00		
Amiga 2000 Pro Pack (Heaps of S/Ware)	\$1699.00		
Amiga 2000HD Pro Pack (Heaps of S/Ware)	\$CALL		
Amiga 2091 + 40Mb Hard Drive (Expandable)	CALL		
* Syquest 45Meg Removable Drive + Cartridge	\$1450.00		
1950 Hi-Res Monitor (For A3000 & Ver2.0)	\$CALL		
Amiga 2000/22500/3000 Internal Genlock	\$399.00		
Nerki Desktop Genlock VHS/SVHS	\$1199.00		
Videtek Scanlock Genlock VHS/SVHS	\$1699.00		
Videtek VideoMaster Genlock VHS/SVHS & Splitter	\$2495.00		
A2000 AT Bridgeboard & 5 1/4" Drive	\$875.00		
A2000 XT Bridgeboard & 5 1/4" Drive	\$475.00		
A500 XT Card With 512k, Clock & Dos 4.1	\$699.00		
Ver 1.3 Rom Chips	\$29.95		
Super Agnus Chip	\$59.95		
Super Denise Chip	\$59.95		
Rom Chips - 68010	\$39.95		
Keyboard Cover Skins for Amiga 2000	\$39.95		
Keyboard Cover Skins for Amiga 500	\$29.95		
Joystick Extension Cable	\$10.95		
DigiView/Printer Switch Box & Cable	\$69.95		
Harris Hitek Filter Screen (Reduces Flicker)	\$39.95		
Prism Colour Splitter & Extra Cable	\$499.00		
Canon ION Still Video Camera Kit	\$1250.00		
Vidi Amiga Frame Grabber B/W	\$399.00		
B/W Video Camera (The Old Way!)	\$699.00		
Sharp JX-100 Colour Scanner- Ltd Stocks	\$1495.00		
Kurta Graphics Tablet (S/Ware EXTRA)	\$899.00		
Kawai Funlab Keyboard & Midi I/Face	\$895.00		
* * New Canon ION (SVHS) Still Video Camera	\$1375.00		
* A2320 De-Interlacer Card	\$449.00		
Commodore 1230 9 Pin Printer B/W *	\$325.00		
Star NX-1000 Colour 9 Pin Printer *	\$375.00		

## NEWS 'N' STUFF

Firstly many apologies to East Coast Amiga User Group for putting the incorrect date of their open day in May ACAR. Sorry folks.

For those Amiga heads who are into video, take a look at the newly published "Video Camera Magazine" which is Amiga oriented and has useful info on mixing video with Amiga. Impressive!

And the winner is . . .  
**A2320 De-Interlacer Card.**  
 Mix this with your A2000, 1950 Monitor and it's the hottest new product around. Thumbs up!

## THE HARD DISK CAFE

POSTAL ADDRESS  
 P.O. BOX 879, MONA VALE 2103  
 PH: (02) 979 5833 FAX: (02) 979 6629  
 AUTHORISED EDUCATION  
 DEALER

**PHONE FOR THE LATEST  
 NEWS ON SPECIALS AND  
 NEWEST PRICES ON  
 HARDWARE**

## NEWS 'N' STUFF

Firstly many apologies to East Coast Amiga User Group for putting the incorrect date of their open day in May ACAR. Sorry folks.

For those Amiga heads who are into video, take a look at the newly published "Video Camera Magazine" which is Amiga oriented and has useful info on mixing video with Amiga. Impressive!

And the winner is . . .  
**A2320** De-Interlacer Card.  
 Mix this with your A2000, 1950  
 Monitor and it's the hottest new  
 product around. Thumbs up!

## THE HARD DISK CAFE

POSTAL ADDRESS  
P.O. BOX 879, MONA VALE 2103  
PH: (02) 979 5833 FAX: (02) 979 6629  
AUTHORISED EDUCATION  
DEALER

**PHONE FOR THE LATEST  
NEWS ON SPECIALS AND  
NEWEST PRICES ON  
HARDWARE.**

## EDUCATION






READING & TYPING	AGE 3-6	\$39.95
* ALGEBRA VOL I	HIGH SCHOOL	\$79.95
* ALGEBRA VOL II	HIGH SCHOOL	\$79.95
ALPHABET	PRESCHOOL	\$49.95
ARITHMETIC	HIGH SCHOOL	\$69.95
ASSOCIATED - WORD ASSOCIATION	AGE 3-8	\$39.95
BAMBINOS JIGSAW PUZZLE	AGE 3-8	\$39.95
BASIC GRAMMER	AGE 7 & UP	\$49.95
BETTER SPELLING	8 TO ADULT	\$59.95
COMIC SETTER ART DISKS - FUNNY FIGURES		\$39.95
- SUPER HEROES		\$39.95
- SCIENCE FICTION		\$39.95
CROSS OUT THE INTRUDER	AGE 3-8	\$39.95
DECIMAL DUNGEON	AGE 5 & UP	\$69.95
DINOSAUR DISCOVERY KIT		\$54.95
DISCOVER ALPHABET	AGE 6 & UP	\$39.95
DISCOVER CHEMISTRY	AGE 12 & UP	\$39.95
DISCOVER MATHS	AGE 10 & UP	\$39.95
DISCOVER NUMBERS	AGE 6 & UP	\$39.95
DISCOVERY GEOGRAPHY <small>EXPANSION DISK</small>	GRADE 9-12	\$29.95
DISCOVERY HISTORY <small>EXPANSION DISK</small>	GRADE 9-12	\$29.95
DISCOVERY MATHS MASTER DISK	GRADE 1-7	\$59.95
DISCOVERY SCIENCE <small>EXPANSION DISK</small>	GRADE 9-12	\$29.95
DISCOVERY SOCIAL STUDIES <small>EXPANSION DISK</small>	GRADE 9-12	\$29.95
DISCOVERY SPELL MASTER DISK	GRADE 1-7	\$59.95
DISCOVERY TRIVIA 1 <small>EXPANSION DISK</small>	VARIOUS	\$29.95
DISCOVER TRIVIA 2 <small>EXPANSION DISK</small>	VARIOUS	\$29.95
EZ-GRADE (TEACHERS GRADEBOOK)	TEACHERS	\$89.95
FUN SCHOOL 2	AGE 6-8	\$49.95
FUN SCHOOL 2	OVER 8	\$49.95
FUN SCHOOL 2	UNDER 6	\$49.95
FUN SCHOOL 3 * NEW		\$49.95
KATIES FARM		\$59.95
KIDS COLLECTION	AGE 3-7	\$59.95
KIDS TALK	5 TO 12	\$54.95
KINDERAMA	PRESCHOOL-6	\$69.95
* MCGEE	LOWER PRIMARY	\$59.95
MAGIC MATH	4 TO 8	\$49.95
MATCH IT		
MATH A MAGICIAN		\$49.95
MATH BLASTER PLUS-PRINTS CERTIFICATES	PRIMARY	\$69.95
MATH MANIA	8 TO 12	\$59.95
MATH TALK		
MATH WIZARD	AGE 5-10	\$69.95
MAVIS BEACON TEACHES TYPING	AWARD WINNER	\$69.95
MEDAL WINNER		\$49.95
MEMORISE	AGE 3-8	\$39.95
PLANET PROBE		\$49.95
PROBABILITY	HIGH SCHOOL	\$69.95
PUZZLE STORY BOOK		\$54.95
READ A RAMA	AGE 5 & UP	\$69.95
READ N RHYME		
ROBOT READERS - AESOPS FABLES		\$34.95
ROBOT READERS - THE LITTLE RED HEN	AGE 4-8	\$34.95
ROBOT READERS - THE THREE BEARS	AGE 4-8	\$34.95
ROBOT READERS - THE THREE LITTLE PIGS	AGE 4-8	\$34.95
ROBOT READERS - THE UGLY DUCKLING	AGE 4-8	\$34.95
SESAME STREET - LETTERS FOR YOU		\$49.95
SESAME STREET - NUMBERS COUNT		\$49.95
SESAME STREET - OPPOSITES ATTRACT		\$49.95
SMOOTH TALKER		\$54.95
SPACE MATH	AGE 8 & UP	\$39.95
SPELL BOOK	AGE 4-6	\$39.95
SPELL BOOK	AGE 7 & UP	\$39.95
SPELLBOUND	PRIMARY	\$59.95
SPELLER BEE		
SUM-IT MOUNTAIN		\$49.95
SUNNYSIDE UP		\$49.95
TALES OF THE ARABIAN NIGHTS	AGE 8-12	\$69.95
TALKING COLOURING BOOK	PRE-SCHOOL	\$49.95
THE BIRDS & THE BEES - SEX EDUCATION	AGE 7-12	\$39.95
THINGS TO DO WITH NUMBERS	PRIMARY	\$39.95
THINGS TO DO WITH WORDS	PRIMARY	\$39.95
THREE BEARS	5 TO 10	\$49.95
TRACKERS QUEST	AGE 4 & UP	\$54.95
TRIGONOMETRY	HIGH SCHOOL	\$69.95
WHERE IN EUROPE IS CARMEN	VARIOUS	\$84.95
WHERE IN THE USA IS CARMEN	VARIOUS	\$84.95

NAME: \_\_\_\_\_ PHONE: ( ) \_\_\_\_\_

ADDRESS: \_\_\_\_\_ PCODE \_\_\_\_\_

☒ PAYMENT : CHEQUE ☐ B/CARD ☐ M/CARD ☐ VISA ☐

CARD # [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Exp:      Signature \_\_\_\_\_

ALL ITEMS LISTED ARE IN STOCK AT TIME OF DEADLINE AND WILL BE SENT SAME DAY. ALLOW 14 DAYS DELIVERY. **ADD \$3.00 SOFTWARE POSTAGE.** HARDWARE CALL FOR ARRANGEMENTS. ALL PRICES SUBJECT TO CHANGE.

QTY	DESCRIPTION	PRICE
<b>DO NOT SEND CASH!!</b>		<b>TOTAL =</b>

an overview of the Phoenix Board features, some of which have not been documented before, including a quick paragraph on the benefits of the Obese Agnus and updated Denise chips and details of how the software switchable 7.5kHz audio filter worked. It also describes an internal RS-232 connector. The video output from the RCA jack is now mono for better quality images when used with a monochrome VDU. At the end of the chapter there are descriptions of all the options the board offers.

Chapter 2 is the installation guide. It starts by explaining the hazards of static electricity and gives some recommendations on how to avoid it. There is also a comprehensive list of tools for the job and some other helpful hints.

## Installation

As I read the guide I decided to disassemble my A1000 as I followed the instructions.

I unplugged all the cables and peripherals from the A1000, including the Sidecar. Uprturning the system unit allowed removal of the five case screws which were standard Phillips-head, unlike the A500. Reinverting the unit, I removed the top cover and revealed the RF shielding. This had to be removed next. Under the RF shielding was the original outdated board, mine with the telltale NTSC daughterboard. The manual had diagrams of both the PAL and NTSC versions.

Removing all the screws holding the board in place and straightening the tabs on the lower RF shielding allowed me to take the board out of the chassis. I placed it in the foam-lined box from which the Phoenix board came. It was time to remove the Phoenix board from its static-free bag and have a look at it. I placed it on top of the bag for study. The quality of this board far surpassed my expectations. I almost forgot about the long wait - it seemed all worth it now.

I decided to see if I could identify some of the features of the board. I saw the two rows of RAM chips, the square 68881/2 co-processor socket, the internal drive plug, the triple-row header for the RAM daughterboard, the expansion slot and the Obese Agnus were all readily spotted. I went to the manual and another detailed diagram to verify my guesses and to identify more of the features.

It was a matter of putting it in and seeing how well it worked. But firstly I had to exchange some chips from their old board. To save on costs, Phoenix decided to omit some chips from the board which already existed on the original. This way, we weren't doubling up on these chips. They were the two CIAs, the MC68000 CPU and the two custom chips - Denise and Paula. I carefully removed the 68000 and placed it on the static bag. Then I had to remove the NTSC board to allow extraction of the custom chips. After I had done this, I decided to remove the CIAs and place them directly into the new board, avoiding a mix up.

Now all that had to be done was to install the board into the A1000 system unit. I visually checked all aspects of the board and cleaned the 86 pin expansion connector with methylated spirits as suggested. I lined up the board and put it into place. Everything lined up and fit perfectly. The mouse and joy stick ports were a little tight, but that was the fault of the original case design.

I made sure all the tabs on the lower RF shielding were in the right slots. I twisted them to secure the shield. Installation of some screws to hold the board in place was performed before I mounted the floppy drive in

# \$100 OFF!

## Audio Engineer<sup>Plus</sup>™

The Top Quality Stereo Sound Recording and Editing System for the Amiga.

That's right! For a limited time only, you can trade in any old Amiga sound sampler direct to GSOF and purchase the highly acclaimed Audio Engineer Plus for only \$329.00+P/H. That's an incredible "\$100 OFF" our normal retail price!

**Take advantage of this FANTASTIC trade-in offer NOW!**

Just send your old sound sampler and payment of \$329 + \$10.00 postage and handling to:

**GSOF PTY LTD. 24 Commodore Pde. Smithfield West. South Australia. 5114. Phone/FAX 08 254 2261**

Name .....	
Address .....	
City .....	State .....
Post Code .....	Phone .....
I endorse my cheque/money order for \$339.00 OR please debit my	
<input type="checkbox"/> BankCard	<input type="checkbox"/> Visa Card <input type="checkbox"/> MasterCard
Expiry Date .....	
<input type="text"/>	<input type="text"/>
Signature of CardHolder .....	

A.C.N 007 060 728. A working home made sampler qualifies as a trade-in. Offer Expires 31/7/91

its bay. All screw holes were perfectly placed and no modifications or force was required. I plugged the power from the large power supply unit into the board. It was basically ready to be tested.

## RAM and ROM Options

At this stage, I saw no reason to install the KICK-START swap switch, as I only had the one ROM on-board. I didn't need the drive swap switch to be installed for initial testing either. I checked to see all relevant jumpers were configured correctly. While reading the documentation for the jumper settings, I noticed that RAM could be configured 6 different ways depending on what you had installed. If you only had ONE Megabyte onboard, you could have configured:

- 1Mb of Chip and no Fast
- 512Kb each Chip and Fast
- 512Kb of Chip and no Fast

With TWO Megabytes installed a one, you could have 1Mb each of Chip and Fast, 1Mb of Chip only, or with the new SUPER Obese Agnus (as in the A3000) a full 2Mb of Chip RAM! Did you follow all that?

Hitting the Power Switch, I hooked up the monitor and plugged the computer into the mains. I then tentatively switched on. I held my breath and gritted my teeth. A couple of seconds and up popped the familiar Workbench hand prompt. I was impressed that I didn't have to insert a KICKSTART disk first.

I put the supplied Phoenix boot disk into the drive. It loaded for a while and all worked fine. There it was, a familiar Workbench screen with a shell window at the bottom. The title bar revealed 1.9 Megabytes of RAM. That was impressive. I browsed around the disk and found some files that tested the system. Running a program called "PBTEST". It checked RAM, set the clock, checked all ports, the audio filter and more. Rather thorough, I thought. I was also very pleased it did not report any

problems with the board. Next thing was to check the machine would run a game. It did so, without fuss.

So, in went the KICKSTART and drive swap options. A couple of quarter-inch holes above the keyboard connector - as suggested - allowed mounting of the switches. I found the diagrams for the KICKSTART swap switch a little confusing at first. It led me to believe I was looking at more than a four-pin jumper block. Because L42 is at the bottom of a larger row, you think the four configurations they have pictured in the manual are, in fact, the whole row of jumpers. Jumper L35 is not shown at all in their diagram. Just for those who can't find it: L35 is in front of chip U31, behind L12/13.

The drive swap was a lot easier to install. Just remove two jumpers and install the switch across them. All set to put the RF shielding back. Firstly, I had to add some supplied insulation to the back of it to prevent the exposed rears of the DB25 ports from shorting. The machine was reassembled and I plugged everything into it - including the Sidecar.

## Sidecar sadness

The Sidecar was my interface to a hard disk. It housed a 33 Megabyte Western Digital drive with an OMTI RLL controller. I partitioned it with 21 Megabytes dedicated to AmigaDOS and the remainder of about 12 Megabytes, to MS-DOS. I tried booting my customised Sidecar disk. Everything looked fine and booted as usual. That was until the AMIGA tried to access the JANUS controlled hard disk, it couldn't find it.

I unplugged the Sidecar and cleaned the expansion connectors again. This was done a couple of times before realising there was a problem. The documentation insists there are a lot of problems with the Sidecar and its inherent lack of reliability. A phone call to Phoenix resulted in a conversation with Andrew Wilson himself. He assured me there were ways of fixing the problem with some chip replacement and fiddling about. I decided I would rather sell the Sidecar and get Phoenix's interface for an ST506 hard drive. That way I could use the existing drive for the Amiga at the expense of PC compatibility.

The Phoenix interface was a box that allowed an IBM style controller card to plug into the A1000's expansion port and control any ST506 type

drive. I ordered one of these by supplying all the details of my setup so they could tailor the interface to my hardware. I received it a little over a week later.

## ST506 Tricks

I plugged the box in and then installed the OMTI card. The hard drive unit was connected to them. I ran the supplied low level format program on the drive. All the defects that were listed on the hard drive's case showed up - BUT, there were a few new ones in obviously critical places! For this reason the defects list couldn't be written back to the drive. The software alerted me to this and terminated. I figured the drive was damaged accidentally when I took it out of the Sidecar. It was now useless for what I needed!

I decided, instead of buying a new ST506 type drive, I would see if I could get an auto-booting internal SCSI hard disk. After all, I did have a SCSI provision already in my computer - doing nothing. With my tail between my legs I rang Phoenix and explained there seemed to be no problem with their hardware, rather, with mine. This led me to enquire if I would be able to return the interface as a trade on their 52 Megabyte Quantum SCSI drive. The sums done, they were very helpful in allowing me to do the trade. A small rehandling fee of \$30 was imposed, which I thought was fair, as Phoenix were under no obligation to take back the interface.

The Quantum drive arrived a week-and-a-half later. By this time it was the 28th of March. Busy with the new SCSI, I installed the hard disk as instructed.

I even bought the Tandy "Nibbling Tool" as advised. That's a great tool! I'd hate to have tried cutting the aperture in the RF shielding with a hack saw or tin snips. This tool made an extremely neat square hole with nice right-angled corners. Didn't even need to be filed, but I encourage you to touch up the edges with a file anyway. It even nibbled out the recess for the 50 pin plug cleanly and quickly. I recommend it to anyone, buy this tool to help installation of the internal hard disk if you decide to install one.

The final installation steps were to screw the brackets onto the drive and clean up the sticking surfaces of the RF shield with metho, plug everything in and stick it in place. I decided to test the drive before I put everything back together.

I booted the SCSI installation disk that was sent out with the Phoenix board. Then ran SCSI\_FORMAT to do a low level format. It didn't work! It locked up just after starting. What was wrong? I didn't have a dud SCSI drive too? I rang Phoenix and spoke to Michael Warner, the author of SCSI\_FORMAT. He informed me the version I received was an early one and he had since updated it for compatibility with the Quantum. I think he mentioned the version I had received was written for the Teac 40 Megabyte drive they had originally supplied.

On talking to Michael, I found out the original problem with my Western Digital drive was also with the ST506 "FORMAT" program he had written. It apparently had trouble with more than a few hard errors. Maybe my drive was alright after all? I decided to check. I had a retailer install my 33meg drive in a PC compatible and run an MS-DOS based low level format on it. He reported he had no problems. At least I could now sell it rather than just the controller.

Michael finished by telling me all the SCSI drives were low-level formatted and tested before leaving Phoenix. He added that I didn't have to perform that step. I could just MOUNT the drive and FORMAT it normally.

I did that by setting up a 20 megabyte MOUNTLIST for DH0: using FASTFILESYSTEM. I mounted that partition, then used the supplied QMOUNT command on two more partitions, another of 20 megabytes capacity and one of 12. Because I was not certain of the exact number of cylinders my drive contained, I MOUNTed DH2: with more cylinders than I calculated the drive had.

Then I did a complete cylinder by cylinder format on the partition. I waited until FORMAT reported it could no longer open the device. I noted the cylinder number it stopped at and made the previous cylinder the HighCyl for the partition. DH0: and DH1: were only formatted using the QUICK parameter.

The AmigaDOS INFO command showed two 19 megabyte drives and one at 10. But under POPINFO there were two drives, one being 20,478,976 bytes and the other 11,262,976. So don't be alarmed if you think you're not using the full capacity of your drive. I guess the AmigaDOS command, INFO divides by 1,048,576 (a true megabyte). Those capacities add up to 52,220,928 bytes in total.

The system was copied across to DH0:. Then SCSI\_AUTO was run on it, which told me to reset the computer and "watch the magic". I did, and was suitably impressed. My computer booted from the hard disk and very fast indeed.

What would happen if I turned off my A1000, removed all disks and just turned it on again? I tried and was very happy to see my A1000 cycle through the self-test screens (flashes of grey and white) and then start booting. I had Workbench up in less than 20 seconds from switch-on (I have quite a few ASSIGNments in the STARTUP-SEQUENCE now, so it takes about 25 seconds). Not bad for an A1000. A computer that not long ago, needed a KICKSTART disk inserted first, then a floppy boot disk to start up a dinosaur-like system.

It used to take longer than three minutes for my system with the Sidecar to boot. That was less than a month ago. I now have a system on

the edge of technology again! All I have to do is switch on the computer and the monitor, and before the picture tube has warmed up, I'm ready to go.

The computer has a much smaller footprint now that I have no need for the Sidecar. Just the neat A1000 case and monitor with an external drive alongside. I stuck the Phoenix sticker sent with the board to the front of the case. This informs all, there is an amazingly powerful machine humming away in front of them.

The setup configuration I am using at the moment is with the system unit on its side resting on two brackets bolted to the side of my desk. The brackets were spaced so the front one sits between the rear mouse ports and the expansion connector and the rear one just aft of the expansion port. This allows the joy stick and mouse cables to exit their ports unobstructed and to plug anything into the 86 pin connector. The power

switch is on the upper edge and easily accessible.

I have just the monitor, mouse and keyboard on the desk. The external drive sits horizontally on the upper side of the system unit and is easy to get to. I bolted the brackets on the desk so the drive is flush with the desk top. A couple of dabs of Blu-Tak keep the drive from moving about. Using my drive swap switch, I could boot from DF1: when and if I decide to play games. I don't need to get to the internal drive except when I'm doing a hard disk backup, so my system may as well stay like this.

## Workbench 2.0?

Something I looked forward to when I got the new board was installing the new 2.0 operating system. I acquired a set of disks from a local retailer and installed all the files on DH2:. I then made the gigantic KICKSTART file (512K) and ran ZKICK. I had the Workbench disk in DF0:. I was going to write a batch file assigning the 2.0 system over to the hard disk partition later - if it all worked. Well, it didn't!

Workbench 2.0 was unable to load, although KICKSTART seemed to be loading for ages, but when it performed its own reset, I would find I still had version 1.3! Later, I discovered that ZKICK (and KICKIT) tries to place the KICKSTART file into RAM above address 200000. My attribute \$5 (Fast) RAM starts at address C004C2 and ends at CFE7FF. This was no good.

I contemplated de-compiling ZKICK and seeing if I could change the start address, but decided I would rather wait for either the new KICKSTART 2.0 ROM or save up for the RAM daughterboard, which would start at address 200000. ZKICK was also written in Assembly which is NOT my forte.

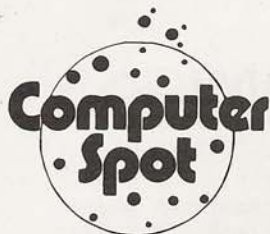
## Conclusions

In summary, I am extremely impressed with this Phoenix product. The service is quite good as you can speak to those who designed and built the board. They will answer any questions you may have and HAVE to know what they're talking about. I'm proud the Phoenix board is an Australian product. I just hope people support Phoenix Microtechnologies Pty Ltd and what they have to offer Australians and the rest of the world. Long live the A1000... □

## COMPARISON CHART

Normal running conditions. Background utilities include ZOOM, POPMENU and FASTFONTS. Hardware on stock A1000 included, one drive and SIDECAR attached. The PHOENIX A1000 included, one floppy and auto-booting SCSI harddisk attached.

	ORIGINAL	PHOENIX
RAM: (Bytes)		
WARM BOOT	285,104	1,763,568
"AVAIL" (MAX)	515,864	2,088,696
DPAINT Lo-Res, 32 Colours (CHIP)	57,448	771,600
(FAST)	0	743,152
(TOTAL)	57,448	1,514,752
EXPANSION:	86 Pin Connector	86 Pin Connector
	256K Expansion	Full Length A2000 Slot
		B2000 Video Slot
		8 Meg RAM Board Connector
		Internal 50 Pin SCSI
		26 Pin SCSI for External plug
		Internal Serial Port
		Internal Disk Drive Connector
		68881/2 Co-Processor Socket
KICKSTART:	Disk	Up to 4 ROMS Onboard
REAL-TIME CLOCK:	No	Yes
BOOT FROM DF1:	No	Yes
AGNUS:	Original Only	Fat & Upward (Obese included)
AUDIO FILTER:	No	Yes
HARD DISK:	Janus Controlled 33 Meg	SCSI Controlled 52 Meg (17ms)



**STOP PRESS!**  
1802 Colour Monitor  
**\$249**

Suits C64, Amiga Starter Pack, VCR,  
Nintendo and Megadrive.  
(Cables may be required)

**Computer Spot**  
**MAIL ORDER**  
TOLL FREE (008) 252 130  
**FOR ORDERS ONLY**  
PHONE (02) 638 2897

# PRICE DEVASTATION

**HOT!**

## AMIGA PRICES SLASHED

**AMIGA  
500**  
+ Monitor

**\$999<sup>00</sup>**



**AMIGA  
2000**

**\$1399<sup>00</sup>**

Thompson Monitor  
\$299  
when purchased  
with A2000.



## AMIGA 2000 HD

Includes 40 Mb Hard Disk

**Save  
\$200**

**Limited  
Hurry!**



Bonus 8  
FREE  
Games

(Monitor not included)

**\$2195**

## AMIGA 2000

Latest Version 1.3

**Limited  
All Brand  
New**

Bonus 8  
FREE  
Games



**Save  
\$270  
Hurry!**

(Monitor not included)

**\$1399**



## AMIGA 500 SOLUTION

Amiga 500	\$799
Phillips Monitor	\$489
Star NX1000CL Printer	\$399
Cable	\$39
Kindwords	\$99
512k Ram Expansion	\$139
\$240 of software - see below	\$240

**\$1899**

**BONUS  
8 FREE  
games.**

**TOTAL**

**\$2204**

**Save over  
\$300**

## Colour Printers



**Star NX100CL**  
9 pin colour  
Extra \$120  
worth of software  
(see below for titles)  
**\$399**



**Citizen 200 GX**  
9 pin colour  
Extra \$180  
worth of software  
(see below for titles)  
**\$499**



**Citizen GSX 140**  
24 pin colour  
Extra \$240  
worth of software  
(see below for titles)  
**\$799**



**Remote Control  
Joysticks**  
Micro Switched  
**\$49.95**

**Trade in your Amiga  
500 Today!**  
for **\$400**

(Assuming complete V1.3 in working order + boxes)

### AMIGA 500 MEGA PACK

Includes  
Amiga 500 • Mouse  
2 Joysticks  
plus \$180 worth of  
software

**\$799**



**68030**  
25 Mhz Board  
**\$1399**

inc 2 Megas suit  
A2000 only

**Roctec  
Genlock**  
**\$299**

Suits ALL Amigas  
Includes test software

\* For special software offer select from:  
Airbourne Ranger, Pictionary, Creature,  
Pipe mania, Drakken, Microprose  
Soccer, Kindwords and more.

# AMIGA

"No Fuss" Software Exchange Policy  
If it doesn't work when you get home,  
we'll replace it!



## AMIGA SOFTWARE & HARDWARE

### ART & UTILITIES

BROADCAST TITLER 2	Titling software, 2 MEG req'd	399.00
DELUXE PAINT 3	If you own an Amiga, own this	99.95
DELUXE PRINT 2	Make signs, banners and cards	99.95
DELUXE VIDEO III	Make your own movies	99.95
DESIGN 3D	3D modeling program	159.95
DIGIVIEW GOLD 4	Digitize Photos	299.00
DISTANT SUNS	Awesome astronomy program	99.95
SCULPT ANIMATE 4D	Powerful rendering/Animation	799.00
VISTA	Create fractal landscapes	149.95
AMIGA VISION	Icon based software authoring system	149.00
AMOS	Games / demos creator language	129.95
AREXX	Programming language	84.95
B.A.D.	Speed disk access	89.95
CROSS DOS	Access msdos files on amiga drives	59.95
DEVPAC	Programmers assembly language	189.95
DISK MASTER	High quality file utility	69.95
GPTEFM	Comm's with vteal	99.95
HYPERBOOK	New authoring program	139.95
KDV.5	Control the virus!	24.95
LATTICE C-COMPIER 5.1	The #1 'c' compiler	499.00
PRO VIDEO POST	Video titling with anti aliased fonts	399.00
MAVERICK	Disk based game copier Parameters	79.95
MEGA DOS	Amiga dos tutorial	19.95
MEGADISK	Vol. 2 thru to 20 available	19.95
QUARTERBACK 4.0	Hard drive back up tool	99.95

### ARCADE & ADVENTURE

AWESOME HOTTEST	new arcade hit 3 disks!	79.95
ATOMIC ROBO KID	Great new arcade hit	59.95
B.A.T.	So-Fi adventure	69.95
BACK TO THE FUTURE 2	Adventure game of the movie	59.95
BUCK ROGERS	Classic sci-fi hero fun	49.95
CADAVRE 3D	arcade adventure	59.95
CAPTIVE	So-Fi role playing action game	69.95
CARTHAGE	Strategy from prognosis	69.95
CINEMWARE BUNDLE	Defender crown / King Chicago SDI	39.95
CURSE AZURE BONDS	D&D epic adventure series	49.95
DOUBLE DRAGON 2	Golden Classic	49.95
DRAGONS LAIR TIME WARP 2	New version	89.95
ELVIRA	Hot adventure game fun with	79.95
GHOSTS & GOBLINS	The arcade classic is fantastic!	49.95
GOLDEN AXE	Arcade smash hit	59.95
GREMLINS 2	Hit game based on the movie	59.95
IMMORTAL	3D Arcade adventure	59.95
KILLING GAME SHOW	Hot new shoot em up strategy	69.95
LEMMINGS	You'd be crazy to miss this!	69.95
LUTUS TURBO ESPRIT	2 player dual screen racing fun	59.95
NIGHT BREED	Excellent 3D adventure	59.95
MIG-29	Soviet flight simulator	69.95
MONTY PYTHON	Arcade Flying circus madcap fun	59.95
NARC	Great arcade conversion	69.95
NITRO	Hot new car racing fun	59.95
NINJA WARRIORS	Superb quality arcade hit	54.95
ORBITUS	New graphic adventure from prognosis	69.95
PANZA KICK BOXING	New release	59.95
RICK DANGEROUS 2	Top quality arcade fun	59.95
ROBOCOOP 2	Arcade smash em up go robo	69.95
SHADOW OF BEAST 2	Show off your amiga today!	79.95
SUPER MONACO GP	Arcade racing action	59.95
SWIV	Stikwom 2, excellent shoot-em-up	69.95
STUN RUNNER 3D	fast paced action	69.95
STREET ROD	Buy it, build it up, n. race it!	49.95
STRIDER 2	Sequel to great arcade game	69.95
Teenage Mutant Ninja Turtles	Ask your kids!	69.95
TURRICAN 2	Great arcade shoot up!	69.95
ULTIMATE RIDE	New Release	59.95
U.N. SQUADRON	Arcade hit	59.95
VIZ	Zany comic action, Not for kids	59.95
WHEELS OF FIRE	Excellent car compilation pack	49.95
WRATH OF THE DEMON	High quality adventure game	89.95
Wonder Boy In Monster Land	Arcade smash hit	49.95
ALIEN DRUG LORDS	sci-fi adventure	59.95
BATTLE COMMAND	3-D tank simulator	69.95
CAPTIVE	SC-Fi role playing game	59.95
CELESTA GT4	Excellent new rally cross game	69.95
CHAMPS HQ 2	High speed racing fun	69.95
CHAMPIONS OF KRYNN	Role playing epic	59.95
CODENAME ICEMAN	Serra secret agent adventure classic	59.95
CONQUEST OF CAMELOT	A highly recommended serra adventure	59.95
DUNGEON MASTER	3D excellent role playing	69.95
Dungeon Master Data Disk 1	Chaos strikes back, requires above	59.95
KINGS QUEST 4	The classic comes to the amiga	59.95
LOOM	Adventure game epic	59.95
LEGEND OF FAERGHAIL	3D role playing epic	59.95
LEISURE SUIT LARRY 3	Serra hit adult adventure	59.95
MEAN STREETS	So-Fi detective adventure	69.95
MIGHT & MAGIC 2	Known as the best role playing epic	59.95
NOBUNGAS AMBITION	VERY HEAVY QUALITY ADVENTURE	79.95
NARCO POLICE	Great new arcade game	59.95
POOL OF RADIANCE	D & D role playing game	49.95
POLICE QUEST 2	More crime bustin' adventures!	59.95
QUEST FOR GLORY 2	Heros Quest 2	69.95
RANX	Crazy new futuristic game	59.95

TOTAL RECALL	69.95
SPACE QUEST 3	59.95
SPEED BALL 2	59.95

Arcade movie tie-in	69.95
Outer space sierra	59.95
Futuristic sports	59.95

### SIMULATORS & STRATEGY

A-10 TANK KILLER	3D war strategy action	69.95
Advanced Destroyer Simulator	Naval strategy	69.95
ACTION STATIONS	WWII naval strategy	59.95
BLUE MAX	WW.I. flight simulator	69.95
BATTLE OF BRITAIN	Their finest hour!	59.95
DAS BOOT	WW.W.I. submarine simulation	69.95
F16 COMBAT PILOT	The fighting simulator	54.95
F29 RETALIATOR	3D combat simulator	59.95
FIGHTER BOMBER	Voted best game! combat simulator	49.95
F19 STEALTH FIGHTER	Absolutely amazing!	79.95
INDIANAPOLIS 500	3D Car racing GAME OF THE YEAR 90!	49.95
GENGHSI KHAN	Ancient orient strategy	99.95
BANDIT KING OF ANCIENT CHINA	Deep and involved strategy	89.95
BATTLE CHESS	Famous animated chess game	59.95
BUTZKRIEG	Battle of ardennes	59.95
CHESSMASTER 2000	Best quality 3d chess ever	49.95
HARPOON	Submarine simulation wartime	59.95
HARPOON BATTLESET 2	North Atlantic convoy	49.95
HARPOON BATTLESET 3	The Med conflict	49.95
IMPERIUM	More great card games	69.95
M1 TANK PLATOON	Very heavy sci-fi galactic power	49.95
NAM	Quality 3D tank simulation	89.95
POWER MONSTER	Strategy in Vietnam	89.95
SECOND FRONT	Aweesome 3D global control game	59.95
SUPREMACY	War game	59.95
TEAM SUZUKI	SC-FLEPIC Role Playing	69.95
TEAM YANKEE	3D motorcycle racing action	59.95
ULTIMA 5	Excellent 3d tank simulation	84.95
WOLFPACK	Heavy d&d strategy	79.95
WHITE DEATH	Follow-up to strategy great	89.95
WAR GAME CONST SET	Submarine simulation	79.95
WARLORDS	Strategy on the russian front	59.95
	Make your own strategies	49.95
	Medieval strategy	49.95

### SPORTS

AMIGA CRICKET	Excellent game needs 1 meg	49.95
PRO TENNIS 2	Best tennis game seen	69.95
TV SPORTS FOOTBALL	Enjoy gridiron ?? get this	69.95
TV SPORTS BASKETBALL	Best sports hit game	69.95
KICK OFF 2	Still the best soccer game	59.95
HARDBALL 2	Baseball skills are tested here!	59.95
PANZA KICK BOXING	Excellent martial arts	59.95
INTERNATIONAL SOCCER	Excellent 3D soccer classic forever	59.95
Jack Nicolas Course Design	Fantastic 3D golf and course maker	79.95
TOURNAMENT GOLF	Arcade style golf game	59.95
PGA TOUR GOLF	Latest and greatest golf	59.95
WINNERS ITALY 1990	Soccer fans go for it!	49.95
World Championship Soccer	New soccer game	69.95
WORLD CUP 90 SOCCER	More soccer fun	49.95
ULTIMATE GOLF	Golfing great	59.95

### BUSINESS & HOME

ADVANTAGE	Powerful high speed spreadsheet	299.00
DG CALC	Quality spreadsheet	99.95
EASY LEDGERS	Accounts payable & receivable	399.00
ELECTRIC THESAURUS	On-Line multi-tasking, excellent	69.95
EXCELLENCE 2.0	Professional wordprocessor	299.00
GOLD DISK OFFICE	Complete Database Spreadsheet/Wordprocessing	399.00
KIND WORDS	Word processing package + dictionary	49.95
MAIL-SHOT PLUS	Mailing label processing package	69.95
MAXIPLAN PLUS	Top spreadsheet	199.00
PAGE STREAM 2.1	Quality desktop publishing	399.00
PAGE STREAM FONTS	Additional fonts	59.95
PROFESSIONAL PAGE 2.0	Quality dtp package	299.00
PROWRITE 3.0	Wordpro with colour & graphics	219.00
SCRIBBLE PLATINUM	High speed quality word processor	129.95
SUPERBASE PERSONEL 2	Excellent Database package	139.95
SUPERBASE PROFESSIONAL	Fully programmable database	299.00
SYSTEM 3	Excellent business pack, call	129.95
TRANSWRITE	Quality word processing system	99.95
WORKS PLATINUM	Improved word pro spread sheet base	229.95
DESKTOP BUDGET	Home finance controller	99.95
HOME ACCOUNTS	Balance visa/bankcard and the gas bill	89.95
PAGESSETTER II	Beginners dtp package	179.95

### EDUCATIONAL

BEGINNING GERMAN	~Sprechen sie deutsch	89.95
DUCK TALES	Great fun for the kids	59.95
DECIMAL DUNGEON	Educational junior high 5th	69.95
RUNTSCHOOL 8 up	Educational collection	49.95
RUNTSCHOOL 2.5 (3)	Educational collection	49.95
RUNTSCHOOL 5-7 (3)	Educational collection	49.95
KID TALK	Quality sentence learning	49.95
INTELLITYPE	Learn to touch type on computer	49.95
LOGO AMIGA	Educational programming skills	139.95
MATH BLASTER PLUS	Great learning fun for all	69.95
MATH TALK	Quality maths learning 5 to 10yr	49.95
Mavis Beacon Teaches Typing	#1 Typing tutor al ages	69.95

MICRO FRENCH 1 & 2	Learn French	54.95
PRIMARY MATHS	Education Series	54.95
READ & RHYME	Educational 5 to 10 yr olds	69.95
READ A RAMA	Reading program	69.95
SIM CITY	Design and maintain model city	89.95
SPELLER BEE	Learning words	49.95
WHERE IN EUROPE CARMEN	Geography adventure	84.95
WHERE IN USA CARMEN	Geography educational game	84.95
WHERE IN WORLD CARMEN	Geography educational game	84.95
WHERE IN TIME CARMEN	Latest release in the series	84.95

### MUSIC

BARF & PIPES	Professional midi sequencer	349.00
Deluxe Music Construction Set	Composition editor	99.95
MUSIC X	Quality midi & editing tool	299.00
SONIX	Music editor	149.95
HARMONI 24	track MIDI sequencer	149.95

### HARDWARE

40 MEG SCSI II Drive Quantum	Voice-coil, auto-park, 11-18ms	749.00
8UP Memory Board 2Mg RAM	A2000 ram exp board	699.00
A2010 Internal Drive	A2000 internal drive	199.00
Accelerator GVP A3001 4MB	68030/4Mg 32 bit ram 82co-pro 28mhz	2695.00
Accelerator A2630	68030/68882 2Mb RAM 25MHz	1399
ACTION REPLAY MK2	New version for A500 and A2000!	249.00
ADRAM 540 0K Installed	Expandable to 4 meg for the a500	269.00
AMIGA A590 20MB Hard Drive	Suits amiga 500 2meg ram options	699.00
COMDI AMIGA	Quality amiga midi	179.95
COMIDI POCKET MIDI	Budget midi interface	109.95
AMIGA 500	Powerful home computer	799.00
AMIGA 500 STARTER PACK	Inc tv modulator & software	899.00
AMIGA 500 MEGA PACK	2 joysticks, \$180 in software	799
AMIGA 500 SOLUTION	1 joystick, printer, 1 MEG WP, \$240 in s'ware	1899
DELUXE KIT AMIGA 500	1 MEG a500 + heaps of software	1099.00
AMIGA 2000	Latest model, we love it!	1399.00
AMIGA 2000 PRO	With extra \$1000 in software	1769.00
AMIGA 2000HD (40MBHD)	40 Mieg drive factory fitted!	2199.00
AMIGA 2000HD PRO	With 40 Meg drive and software	2495.00
AMIGA 3000 25MHz	The stuff that dreams are made of	5495.00
Golden Image Optical Mouse	Extremely reliable Amiga mouse	139.95
KCS Power Board A500	IBM emulator for your a500 amiga	799.00
Monitor CBM 1084S	Stereo, suits amiga atari c64 & PC	449.00
ROGTEC Amiga Mouse	The best amiga mouse!!	49.95
PC Emulator Bridge Board AT	Inc. 5.25" 1.2 meg drive	799.00
Phlips Monitor (CM8833)	Stereo, 2 yrs warranty!	469.00
Star NX 1000C	Colour 9 pin. Feature packed.	399.00
CITIZEN GX 200	Colour 9 pin. Outstanding performance	499.00
CITIZEN 140 GX	Colour 24 pin. Feature packed	799.00
EPSON LQ 400	Black 24 pin. Superb print	599.00
CBM MPS 1230	Budget 9 pin.	299.00
RAM CHIPS A590/ADRAM	PER MEG	149.95
Roclec Genlock	Unbelievable value IT'S HOT	299.00
RF302C AMIGA DISK DRIVE	Slim external drive on/off switch	149.00
Trumpcard PRO A2000	Top speed performance scsi interface	499.00
SCANNER 4" hand held	Camera type 10 suits A500 only	699.00
Scanner Golden Image	400 DPI suits all Amigas	399.00
Digiview PAL V4.0	Best quality still digitizer	299.00
VIDI AMIGA	Frame grabber pal now with vidichrome	499.00
MODEM AVTEK 124	Auto everything quality high speed	399.00

## AMIGA Compilations

SAVE \$30 ea.

TNT	\$29.95
includes Xybots, Toobin, APB, Dragon Spirit, Hard Drivin'	
3 Fab Worlds	\$39.95
including Three Stooges, Robot Ranger, Sinbad	
Wheels Of Fire	\$29.95
includes Turbo Outrun, Chase HQ, Hard Drivin', Power Drift	
Cineaware	\$29.95
includes S.D.I., Defense of the Crown, King of Chicago	

SAVE • SAVE • SAVE



There's a Spot near you!

# SEGA

## PC SOFTWARE & HARDWARE • C64 SOFTWARE & HARDWARE

### PC SOFTWARE & HARDWARE

#### ART, GRAPHICS, UTILITIES, BUSINESS & HOME

BANNERMANIA	Signs, banners etc...	69.95
Deluxe Paint Animation	Animation for your pc!	99.95
Deluxe Paint 2 Enhanced	Best graphic editor/ colour printing	99.95
NEWSROOM	Home desk top publishing	49.95
PRINT SHOP	Print cards banners signs...	99.95
MENU MAKER	Excellent menu designer package	49.95
Ninja Turtles Colour book	Great fun for the kids	49.95
MAILSHOT PLUS	Mailing database system	109.95
SUPERCOMM	Quality communications package	119.95
DATA MANAGER	Simple quality database	59.95
DG CALC	Pc spreadsheet	89.95
PUBLISH IT 1.2	Quality desk top publishing	349.95
PUBLISH IT LITE	Budget dtp package	99.95
SWIFTCALC	Quality spreadsheet	59.95
SYSTEM 3	Quality business pack, call	129.95
WORD WRITER	Quality word processor	79.95

#### ARCADE & ADVENTURE

ALTERED BEAST	Classic arcade game	59.95
ATF 2	Sc-Fi 3D action game	69.95
BACK TO THE FUTURE 2	Arcade game of the movie	69.95
BATTLE TECH 2	Crescent hawks revenge	69.95
BANDIT KINGS	Role playing adventure	99.95
BUCK ROGERS	Fantastic adventure fun	69.95
CRACKDOWN	Arcade action thriller	59.95
DOUBLE DRAGON 2	Hot arcade smash em up!	59.95
ELVIRA	Adventure game horror fun	89.95
INDIANAPOLIS 500	Best 3d car racing seen!	59.95
GENGHIS KHAN	Excellent oriental strategy game	89.95
PUNISHER	Hot new release	89.95
STREET ROD	Buy it, build it up, n' race it!	54.95
Teenage Mutant Ninja Turtles	suck on the pizza dudes!	69.95
Turbo Outrun	Arcade racing fun	69.95
Test Drive 3	VGA 256 colour car driving game	69.95
Champions Of Kyrinn	Role playing hit	54.95
Codename Iceman	Sierra secret agent adventure	69.95
Conquest Of Camelot	Sierra medieval quest	69.95
Count Down	VGA adventure spectacular	69.95
Kings Quest 5	Epic sierra adventure in VGA	99.95
Kings Quest Triple Pack	1,2,3 Of the series	84.95
Larry Triple Pack	Leisure suit larry 1,2 and 3	89.95
Mech Warrior	It's back! Sc-Fi role playing epic	69.95
Megatraveller	The no.1 sc-fi role playing hit!	109.95
Monty python	Classic madcap arcade madness	99.95
Microprose Compilation	GunsHIP / SilentService / Airbourne	69.95
Night & Magic 2	Voted no.1 adventure role playing	54.95
Night Breed	Excellent horror adventure	69.95
Nascar Challenge	NASCAR racing	89.95
Nobunagas Ambition	Deep asian historic adventure epic	89.95
Quest For Glory 2	Great sequel strategy	99.95
Rise of the Dragon	Sierra hit new adventure	79.95
RANX	VGA 256 cult adventure game	79.95
Secret Silver Blades	Futuristic adventure	59.95
Search For The King	More d&d role playing	54.95
Sierra Starter Pack	Elvis mystery adventure	69.95
Space Quest 5	Space Quest / Larry / Police Quest	79.95
Star Control	Roger Wilco is back in VGA	79.95
Super Off Road	Deep Sc-Fi adventure strategy game	69.95
ULTIMA 6	Hot new car racing fun	59.95
Wing Commander	Epic role playing hit	84.95
	256 colour space simulator	89.95

#### SPORTS

3D POOL	3 dimensional pool game	69.95
Jack Nicklaus Golf Designer	Golf simulator fantastic	69.95
ITALY 1990	Soccer mania	59.95
International Soccer	Wow more soccer madness excellent!	69.95
HARDBALL 2	Great baseball hit game	59.95
LINKS GOLF	VGA 256 the best golf	69.95
Links Course Disks	Both 1 and 2 available	39.95
LAKERS VS CELTICS	Basketball at the top!	54.95
PANZA KICK BOXING	Excellent martial arts game	59.95
TV Sports Basketball	Best selling sports hit!	79.95
TV Sports Football	Best selling sports hit!	59.95
PGA TOUR GOLF	Fantastic golf fun!	59.95

#### STRATEGY & SIMULATIONS

BATTLE CHESS 2	Oriental chess 3d animated	69.95
BLUE MAX	WW2 Bi-plane heroes	69.95
F15 STRIKE EAGLE 2	Air combat mission simulator	69.95
F19 Stealth Fighter	Complex fighter plane simulator	109.95
FIGHTER BOMBER	Voted #1 combat simulator	99.95
FLIGHT OF INTRUDER	Top quality fighter plane simulator	69.95
RAILROAD TYCOON	The ultimate business simulation	89.95
SIM EARTH	Create your own planet	109.95
SILENT SERVICE II	Submarine simulator	79.95
A10 TANK KILLER	Tank attack aircraft simulator	69.95
COVERT ACTION	War strategy	79.95
Curse Of Azure Bonds	Role playing adventure	54.95
Eye Of The Beholder	Great D&D action adventure	59.95
DAS BOOT	World war 2 submarine simulation	69.95

DEATH KNIGHTS OF KRYNN	Yet another D&D adventure	59.95
HOYLES GAMES 2	More excellent card games	69.95
JET FIGHTER 2	All New vga flight simulator	89.95
M1 TANK PLATOON	War simulator	89.95
Nobunagas Ambition	Deep strategy game ancient Japan	89.95
MIG-29	Soviet flight simulator	79.95
PANZER BATTLES	War game from SSI	49.95
RED BARON	WW1 flying simulation	79.95
SECOND FRONT	War time russian strategy	69.95
TEAM YANKEE	3D high quality combat game	89.95
TEST DRIVE 3	Excellent on VGA	69.95
Their Finest Hour	Brilliant 3d air combat game	69.95

#### EDUCATIONAL

DUCK TALES	Educational	59.95
FIRST WRITER	Early word processing skills	29.95
FUNSCHOOL 2-6	Educational fun	49.95
FUNSCHOOL 6-8	Educational fun	49.95
FUNSCHOOL 8-UP	Learning skills	49.95
Math Blaster Plus	Quality maths package	69.95
Mavis Beacon Teaches Typing	Typing tutor	69.95
Mickey ABC	Early educational	69.95
Mickey SHAPES	Early educational	69.95
Mickey MATHS	Early educational	69.95
PLAYROOM	Early learning fun & games	79.95
SIM CITY	Design & control a city	89.95
SPELL IT PLUS	Quality education package	69.95
Wheel Of Fortune 2	Great family home game	39.95
Where In Europe Is Carmen	Geography game	84.95
Where In Time Carmen	Teaches history & geography	84.95
Where In USA Carmen	Geography game	84.95
Where In World Carmen	Geography game	84.95
WORLD ATLAS	Atlas on computer, fantastic!	89.95

#### HARDWARE

ADLIB SOUND CARD	The original sound card	239.00
PC COLT	Twin 5.25" XT computer	699.00
PC 10 series III	Single 5.25" 40 meg HD XT computer	1495.00
PC 40 series III VGA	AT 286. 1 meg ram. 40 meg HD	1995.00
CGA MONITOR	4 colour PC monitor	449.00
EGA MONITOR	16 colour HI-RES PC monitor + card	699.00
VGA MONITOR	256 colour HI-RES PC monitor + card	999.00
IBM GAME CARD	Required for PC joystick	39.95
JOYSTICK ANALOG PLUS IBM	Quality joystick	59.95
JOYSTICK ANALOG EXTRA	Superb PC joystick	69.95
JOYSTICK PC	Budget PC joystick	29.95
SOUND BLASTER CARD	Magnificent PC sound add-on!	249.00
LIGHTSCAN 200J SCANNER	Handheld scanner 200DPI	199.00
LIGHTSCAN 400H SCANNER	Handheld 400DPI with OCR	369.00
GENIUS PC MOUSE GM-6X	Microsoft compatible 3 button	79.95
GENIUS PC MOUSE GM-F302	As above inc Graphic Art software	139.00
GENIUS PC MOUSE GM-F303	As above inc CAD software	159.00
OPTIMA 286's	Made to measure with your specs	CALL
OPTIMA 386's	Made to measure with your specs	CALL

#### PRINTERS :-

SEE PRINTERS UNDER AMIGA HARDWARE all compatible to PC I

### C64 SOFTWARE & HARDWARE

#### ART & UTILITIES

AWARD WARE	Create & print own awards	29.95
PRINT SHOP	Print signs, cards, banners	79.95
DATA MANAGER	Quality database package	39.95
KWIK WRITE	Budget word processor	29.95
MINI OFFICE 2	Wordpro/ibase/spreadsheet/comms	44.95
NEWSROOM	Desk top publishing package	39.95
PAPERCLIP PUBLISHER	Desktop publishing	54.95
SWIFTCALC	Fully featured spreadsheet	39.95
TOP 20 SOFTWARE TOOLS	Great collection of classic utilities	39.95
WORD WRITER 5	Promising word processor	69.95
ACTION REPLAY MK6	Hacker utility cartridge	134.95
FAST LOAD CARTRIDGE	Limited stocks	49.95
EXPERT CARTRIDGE	Utility cartridge	149.95
TURBOLOAD FASTLOAD	Fastloader cartridge with reset	49.95

#### ARCADE & ADVENTURE

ATOMIC ROBOKID	Arcade smash hit	39.95
BACK TO FUTURE 2	Great game of the movie	39.95
BUCK ROGERS	Comic book classic adventure	39.95
CASTLEMANIA	Arcade adventure	39.95
DAYS OF THUNDER	Tom Cruise car action	49.95
DOUBLE DRAGON 2	Arcade smash hit	39.95
DRAGON NINJA	Kung fu action game	39.95
E SWAT	Arcade action hit game	39.95
GHOULS & GHOSTS	Quality arcade conversion	39.95
GOLDEN AXE	Arcade smash hit	39.95
KINGS BOUNTY	Adventure quest	39.95
NINJA REMIX	New release of Last ninja	49.95
ROBOCOP 2	Hit movie based arcade game	39.95
SUPER MONACO CP	Arcade racing	39.95
SHADOW WARRIOR	Kung fu hit arcade	39.95
STREET ROD	Buy it, build it up, n' race it!	44.95
TURRICAN	The best shoot-em up available!	39.95
WHEELS OF FIRE	Top collection of racing car hits!	39.95
Wonder Boy In Monster Land	Arcade smash hit	39.95
BARDS TALE 1 & 2 & 3	Role playing adventure	59.95

PIRATES	Classic role playing epic voyage	49.95
CHAMPIONS OF KRYNN	Role playing hit	49.95
DEATH KNIGHTS OF KRYNN	Latest D&D adventure	49.95
LOTUS TURBO CHALLENGE	Two player arcade racing	39.95
MONTY PYTHON	Arcade madness	39.95
MIGHT & MAGIC 2	Excellent role playing game	44.95
SECRET SILVER BLADES	Great new role playing hit!	39.95
STRIDER 2	Arcade smash hit	59.95
SUPER OFF ROAD RACING	3D over head racing	39.95
Teenage Mutant Ninja Turtles	Finally it's here!!!!	39.95
TOTAL RECALL	Movie hit game	49.95
ULTIMA 6	NEWClassic role playing	84.95
VIZ	Not for Kids	39.95

#### SPORTS

ALL STAR TEST CRICKET	New cricket game	39.95
BLADES OF STEEL	Ice hockey action	39.95
CRICKET CAPTAIN	Manage a cricket team	29.95
JACK NICKLAUS GOLF	Great golf game	39.95
INTERNATIONAL SOCCER	Excellent classic hit!	29.95
JORDAN V BIRD	One on one basketball	29.95
ITALY 1990	Soccer mania	39.95
TV SPORTS FOOTBALL	3D sports game	49.95
WINNERS ITALY 1990	Soccer at it's best	39.95
PRO TENNIS	Still the best tennis game	39.95
WORLD CUP 90 SOCCER	Excellent sports fun	39.95
ULTIMATE GOLF	New golf release	49.95

#### STRATEGY & SIMULATION

BATTLE CHESS	3D animated chess fun	39.95
CHESSMASTER 2100	Latest chess game	49.95
PANZER BATTLES	Strategic tank battles	39.95
REACH FOR STARS	Classic space strategy	39.95
STAR CONTROL	Galactic conquest	39.95
STORM ACROSS EUROPE	Strategic wargame	34.95
ULTIMA 5	Ultimate role playing game	59.95
VEGAS GAMBLER	Gambling hits	44.95
DESTROYER ESCORT	Naval action simulator	39.95
FERRARI FORMULA 1	Quality racing game	39.95
F16 COMBAT PILOT	Combat flight simulator	49.95
F18 HORNET	Nice Air combat game	49.95
FIGHTER BOMBER	Voted best game, combat simulator	39.95
Project Stealth Fighter	Air-combat simulator	49.95
RED STORM RISING	Submarine combat simulator	49.95
SUBBUTOE	Table soccer simulator ....	39.95
U N SQUADRON	War simulation	39.95

#### EDUCATION

FAMILY FEUD	Family word game	29.95
FUNSCHOOL	2-6 Early learning skills	24.95
FUNSCHOOL	6-8 Educational fun	24.95
FUNSCHOOL	8-UP Learning is fun at home!	24.95
MATH BLASTER	Early learning game	59.95
Mavis Beacon Teaches Typing	Best typing tutor	49.95
SIM CITY	Build, govern, your own city!	59.95
SPELL IT	Early learning skills	59.95
TYPE	Quality typing tutor	39.95
WHEEL OF FORTUNE	Family word game	29.95
Where In Europe Is Carmen	Geography game	69.95
Where In Usa Is Carmen	Geography game	69.95
Where In World Carmen	Geography game	69.95

#### HARDWARE

1541 DISK DRIVE	For the commodore 64	299.00
ACTION REPLAY MK6	Hacker utility cartridge	134.95
C64 TEST PILOT PACK	C64 computer, disk drive, games	499.00
CABLE RF C64	Connect C64 to TV	14.95
CABLE SERIAL 1.5M C64	Suits disk drives/ printers etc	9.95
DATASETTET	Budget storage for C64	49.95
DISK NOTCHER	Double disk storage	14.95
POWER SUPPLY C64	Replacement power supply	54.95
PRINTER MPS1230	9 Pin, suit C64 serial + PC	299.00
Xetec Junior Interface	Use parallel printer on C64	129.00



# MAIL ORDER

TOLL FREE (008) 252 130  
FOR ORDERS ONLY  
PHONE (02) 638 2897

After something special?  
If it's not here, we can chase it for you.



## GAMEBOY • SEGA MEGADRIE

### NINTENDO GAMEBOY

#### HARDWARE

GAMEBOY	Take your games anywhere	149.00
ILLUMINATOR	Play in the dark	49.95
PROTECTOR	Case, holds gameboy + 7 games	39.95
AUTO POWER	Plug into car cigarette lighter	29.95
AC ADAPTOR	No more batteries	29.95

#### SOFTWARE

BASES LOADED	Baseball action	59.95
BOXKLE	Arcade puzzle	59.95
BUBBLE GHOST	Blow bubbles past hazards	59.95
BURAI FIGHTER	Space harrier type action	59.95
CATRAP	Challenging arcade fun	49.95
CASTLEVANIA	Arcade adventure	49.95
CHESSMASTER	Can you beat this?	69.95
CHASE HQ	Arcade car chase	69.95
DOUBLE DRAGON	Arcade classic	39.95
DEAD HEAT SCRAMBLE	4X4 Off road racing	69.95
DRAGONS LAIR	Dirk on the small screen	69.95
FINAL FANTASY	Adventure role play	69.95
FIST OF NORTH STAR	Martial arts	49.95
FLIPUL	Arcade puzzle	49.95
GOLF	Mario goes for par	39.95
HARMONY	Brainteasing puzzle action	49.95
IN YOUR FACE	Street basketball	59.95
KUNG FU MASTER	Martial arts action	
LOOK N CHASE	Pac Man	59.95
LOOPZ	Link pieces to form loops	59.95
Motorcross Maniacs	Motorcross action	49.95
Nobungas Ambition	Japanese strategy 1MEG!	89.95
NEMESIS	Shoot em up	59.95
NFL FOOTBALL	American football	49.95
OPERATION C	Excellent arcade action	59.95
PIPE DREAM	Stop the water flow	49.95
PAPERBOY	Finish your paper route	69.95
POWER MISSION	Remember battleships?	69.95
POWER RACER	Arcade racing action	59.95
REVENGE OF THE GATOR	Pinball action	39.95
SKATE OR DIE	Skateboard action	59.95
Super Mario Land	All time favourite	39.95
Teenage Mutant Ninja Turtles	NEW RELEASE!!	69.95
TENNIS	Anyone for doubles	39.95

AND TOO MANY MORE TO MENTION!!!

### SEGA MEGADRIE

#### HARDWARE

SEGA MEGA DRIVE	Ultimate 16 bit arcade console	339.00
POWER BASE CONVERTER	Use of sega master system games	79.95
MEGA DRIVE CONTROLLER	Extra standard controller unit	29.95
MEGA CONTROL STICK	Arcade joystick	89.95

#### SOFTWARE

AFTER BURNER II	Jet fighter action	79.95
Alex Kid The Enchanted Castle	Arcade smash hit	59.95
Battle Squadron	Space shoot em up	79.95
Burning Force	sci-fi motobike action	79.95
Budokhan	Samurai action	79.95
Columns	new release	59.95
Cyberball	futuristic sports hit	69.95
Dynamic Dux	arcade action hit game	79.95
Dick Tracy	Dick is on the case	89.95
E-SWAT	police shoot em up	69.95
Forgotten Worlds	shoot em up	69.95
Ghost Busters	who ya gonna call ?	69.95
Ghouls & Ghosts	just like the arcade machine!	89.95
Golden Axe	best version ever seen!	79.95
Golf	sports fun	69.95
Herzog ZWE!	New release, Shoot em up	69.95
John Madden Football	American football	79.95
Last Battle	Arcade action	69.95
Mickey Mouse	Can you save Minnie	89.95
Mystic Defender	Axe em up	69.95
Moonwalker	Help Micheal save the kids	79.95
Phelios	Fantasy arcade adventure	79.95
POPULOUS	Strategy simulation	79.95
PHANTASY STAR II	role playing adventure	99.95
RAMBO III	machine gun mania	59.95
Space Harrier II	3D arcade shoot the lot!	79.95
Super Hang On	high speed bike racing WOW!	79.95
Super League Baseball	quality sports hit	69.95
Super Thunderblade	helicopter arcade hit	79.95
Sword Of Vermillion	new releas	99.95
Sword Of Sodan	Fantasy arcade action	79.95
SUPER MONACO GP	car racing super fun!	79.95
Revenge Of Shinobi	martial arts hit	69.95
Twin Hawk	new release	69.95
Thunderforce II	shoot em up	79.95
Truxton	new release	69.95
World Cup Italia 90 Soccer	Soccer game fun	69.95
Zoom	classic arcade puzzle game	59.95
Zany Golf	Classic golf put put	79.95

Hotline  
0055 20511

"There's a Spot  
near you"

**BRISBANE**  
225 George Street  
Brisbane, QLD 4000  
Phone (07) 229 8011

**BURWOOD**  
185 Burwood Road  
Burwood, NSW 2134  
Phone 744 8809

**CHATSWOOD**  
Shop G9, The Gallery  
Endeavour Street  
Chatswood, 2067  
Phone 419 2333

**CITY**  
165 Castlereagh Street  
Sydney, NSW 2000  
Phone 261 4344

**HURSTVILLE**  
185E Forest Road  
Hurstville, NSW 2200  
Phone 570 7333

**LIVERPOOL**  
Shop 4, Westfield  
Shopping T'n Macquarie St.  
Liverpool, NSW 2170  
Phone 601 7700

**NEWCASTLE**  
80 Pacific Highway  
Charlestown, NSW 2290  
Phone (049) 42 1522

**PARRAMATTA**  
Shop 21a, Greenway Arc.,  
222 Church Street  
Parramatta, NSW 2150  
Phone 891 1170

**PENRITH**  
Shop 1, Carvan Arcad  
389 High Street  
Penrith, NSW 2750  
Phone (047) 32 3377

**NOW OPEN**

**BONDI JUNCTION**  
5/110 Spring Street  
Bondi Junction, NSW 2022  
369 4355

### MAIL ORDER FORM

Send to: Micro Computer Spot. Unit 3, Metro Centre. 38-46 South St. Rydalmere. NSW 2116

PRODUCT / PROGRAM NAME	COMPUTER	DISK TYPE	QUANTITY	PRICE

SUB-TOTAL

POSTAGE

TOTAL

☐ Tick here for your FREE regular issues of Chip Chat magazine.

#### Delivery Details

Name

Address

Telephone

For software only, add \$3 for post or \$15 for courier. For hardware call to arrange.  
We will exercise all reasonable care in the processing of your orders but we accept no responsibility for orders, monies or products lost or delayed in transit. Your order will normally be processed within 48 hours, but please allow 14 working days for the fulfilment of orders. Telephone orders are, of course, welcome.

Whenever possible, please supply a phone number where contact can be made within normal working hours. **PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.**  
**DO NOT SEND CASH.**

When paying by cheque please supply your home address and home telephone number together with normal working hours telephone number.

#### Payment Details

Cheque ☐ Postal order ☐

Bankcard ☐ Master Card ☐



Visa ☐ AGC ☐

Credit card no.

Valid from  to

Name on card

Signature

# Carmen in the classroom

Imagine arriving at school to find your teacher dressed up as "Carmen Sandiego"! Next the headmaster strides in as "Nifty Dan" and soon you are surrounded by the whole nefarious gang. No-one will be dropping rubbish in the playground today, but they will be keeping a watchful eye on their bus passes and bubble gum cards, you never know what this crowd will get up to!

Is this the shape of things to come or just the idle fantasies of a *Carmen Sandiego* fanatic? Who is to know? Perhaps it has already happened in a number of our schools.

In an attempt to keep up with the fast-moving style of today's TV programs and computer games, educators at times feel pressed by the competition. I know, as a teacher, I sometimes felt a tap dance while handing out the worksheets and standing on my head while marking the role was the order of the day. Educators, in the form of teachers, home schoolers or parents supplementing their child's schooling are facing an increasingly challenging task as they tackle the educational needs of their students and/or children.

One answer lies in the entertainment field. Books, computer programs and activities that are both educational and a lot of fun. The *Carmen Sandiego* series is probably the best known piece of "edu-tainment". After the famous *Where In The World Is Carmen Sandiego* we now have *Where In The USA Is Carmen Sandiego*, *Where In Europe Is Carmen San-*

*diego* and *Where In Time Is Carmen Sandiego*, enough to keep the little (and big) blighters "edu-tained" for quite some time.

The *Carmen Sandiego* series calls together many of the features of a superior educational tool. It suits differing ages, abilities and interest groups and it cuts right across the curriculum. It can be used by one student or a group of students, it can be worked on and then returned to at a later date, it can form the focus for a huge range of associated activities and it is a lot of fun.

## Putting Carmen to work

How can educators use a program such as *Where in the World is Carmen Sandiego* effectively? One approach is to use the program only as a focus or even as a jumping off point to achieve the objectives of your program or curriculum. Don't make the mistake of concentrating on the software. Concentrate instead on your student's needs and relate them to the software.

Parents, home schools and teachers will find a wealth of ideas spring to life after playing a few games of *Where In The World Is Carmen Sandiego*. Keep in mind your students' interests as well as their needs and you will all have a lot of fun as you achieve your goals.

Some of the areas that Carmen lends herself to admirably include:

English - where students can be writing letters, designing news items to broadcast or print up in

newspapers. Performing role plays, conducting debates and listening to evidence. They can be reading, writing, listening and speaking *Carmen Sandiego*.

Meanwhile the mathematicians can be calculating distances travelled at variable speeds, determining the total mileage and the cost of this trip. Exchange rates, 24 hour clocks and international time variations are all relevant.

The social scientists may examine the different cultures encountered, perhaps researching religions, currencies, major land marks, social customs, national dress and languages. Data bases can be established to assist your research. Maps, scale, direction, legends and good old Place Geography can all be studied with Carmen as a focus.

Other departments such as the Art Department will not be left out if they produce wanted posters, newspapers or travel brochures. All in all a wealth of valuable activities can be anchored around one piece of software.

The beauty of it is that each set of activities will be designed to meet the needs of the students involved. The students will hopefully emerge from their Carmen studies whether the course is one week or one year in length, with a love and respect for travel rather than a fascination for thieving and deception. Along the way they will have developed a number of skills and explored a wide range of curriculum areas achieving the specific objectives set by their teacher.

If a teacher (at home or in a school) is looking for an entertaining piece of software to link studies across the curriculum, I don't think you can go past *Where in the World is Carmen Sandiego*. □

by Anne Glover

### Distributed by:

Dataflow  
02 331 6153

### RRP:

Amiga \$84.95  
The Teacher's kit costs an extra \$20.



## THE HIGHEST PERFORMING SCSI AND RAM CONTROLLERS FOR THE AMIGA 2000 AND 500

## SERIES II

Over 900KB/sec transfer rate on a standard AMIGA 2000. 1.5 MB/sec transfer rate with a 68030 accelerator.



**MICROLAB**  
COMPUTER CENTRE

PH: (03) 558 9699  
FAX: 558 9522

**SERIES II A2000**

40Q MB Hard Disk + 8M  
RAM Card (0mb)

**\$1,295**

## SERIES II A2000

40Q MB Hard Disk Card **\$1,189**

**SERIES II A2000**

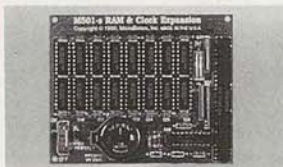
80 MB Hard Disk Card **\$1,395**

## SERIES II A500

40Q MB Hard Disk + 8MB  
(0mb) RAM all in a new  
slim unit **\$999**

**\$999**

# MICROBOTICS M501-S

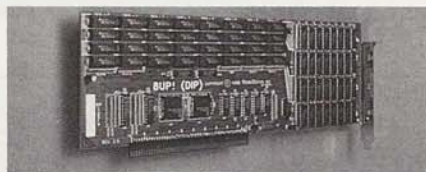


## Half a Meg, Clock and Switch

- 100% compatible with the equivalent Commodore part.
- Its built-in switch allows you to shut it down without having to uninstall it when ill-behaved software expects no more than 512K in your Amiga.

**\$99**

## MICROBOTICS 8-UP



### Maximum Memory In One Slot

- Install 2,4,6 or 8 full Megabytes in one slot
- Important to BridgeCard and 2620 users who need 6MB to max their systems.
- 8-UP is a power efficient (Less then an amp) zero wait state, AUTOConfiguring design.

with 2 MB \$490

## EXPANSION SYSTEMS

## BASE BOARD

### 0-4 MB RAM expansion for the A500

- Solderless, no-modification installation.
- Compatible with all memory configurations 1/2MB and 1MB chip RAM
- Quality 4 layer PCB
- Battery backed clock/calendar

BaseBoard with 2 MB	\$485.00
BaseBoard with 4MB	\$685.00

## DATA FLYER

## A2000 HardCard SCSI controller

- Supports 7 SCSI devices
- AutoBoots under 1.3 Kickstart
- Auto install software, makes formatting and partitioning a breeze

DataFlyer with 40MB Quantum	\$980	11ms
DataFlyer with 100MB Quantum	\$1490	11ms
DataFlyer with 170MB Quantum	\$1950	9ms
DataFlyer with 80MB Seagate	\$1180	14ms

**12 MONTHS WARRANTY ON ALL PRODUCTS**

ITEM	FORMAT	QTY	PRICE

Name: \_\_\_\_\_ Postage \_\_\_\_\_

Address: \_\_\_\_\_ TOTAL \_\_\_\_\_

State: \_\_\_\_\_ P/code: \_\_\_\_\_

Postage:  
surface within Vic \$3.00 per item  
surface outside Vic \$5.00 per item

Card type: \_\_\_\_\_

Card No: \_\_\_\_\_

Expiry: \_\_\_\_\_

Signature: \_\_\_\_\_

**POST TO: PACIFIC MICROLAB, 277 ELIZABETH ST, MELBOURNE, VIC 3000**

# INTERLINK

"THE MAIL"

Bringing you the best for your AMIGA

## ARCADE GAMES

ARACHNAPHOBIA	SOON	LOTUS ESPRIT TURBO	66.90
ARMOUR-GEDDON	SOON	MIGHTY BOMBJACK	SOON
BACK TO FUTURE II	56.90	MYSTICAL	66.90
BAR GAMES	56.90	N.A.R.C. (Ocean's Newie)	66.90
BATTLESTORM	76.90	NIGHT HUNTER	56.90
BILLY THE KID	SOON	NITRO (Multi-Player)	56.90
CARVUP (Cute)	56.90	PENTHOUSE JIGSAW	SOON
CRIME WAVE	66.90	PREDATOR 2	SOON
ECO PHANTOMS	46.90	PRINCE OF PERSIA	56.50
E-SWAT	56.90	ROBOCOP II	69.90
GODS	67.90	SILKWORM IV	66.90
GREMLINS 2	56.90	SIMULCRA	46.90
HARD DRIVIN II (Linkable)	56.90	STELLAR 7	66.90
HORROR ZOMBIES	57.90	STRIDER II	56.90
INSECTS IN SPACE	SOON	SUPER CARS II	66.90
JAMES POND (For Kids)	56.90	SUPER MONACO GP	66.90
JUPITER MASTER DRIVE	66.90	SUPER OFF ROAD	56.50
LAST NINJA III	SOON	TURRICAN II (Excellent!)	66.90
LEMMINGS (Great Fun)	66.90	VIZ (R-RATED)	56.90
LINE OF FIRE	56.90	WRATH OF THE DEMON	66.90

## STRATEGY GAMES

A.D.S.	66.90	MIDWINTER II	SOON
BATTLE COMMAND	66.90	MOONBASE	SOON
BETRAYAL	76.90	NAM	86.90
BIG BUSINESS	66.90	NOBUNAGA'S AMBITION II	96.90
BLITZKREIG MAY 1940	56.90	PANZER BATTLES	46.90
BRIDGE V6.0	58.50	PORTS OF CALL	46.90
CENTURIAN-DEF ROME	58.90	POWERMONGER	47.90
COHORTS OF ROME	66.90	POWERMONGER DATA	SOON
DAS BOOT (Sub-Sim)	66.90	RAILROAD TYCOON	SOON
DEUTOROS	SOON	SECOND FRONT	56.90
EPIC	SOON	SILENT SERVICE II	SOON
FINAL CONFLICT	57.90	SIM CITY DATA 1/2 (EA)	56.90
GUNBOAT	66.90	SIM EARTH	SOON
HALLS OF MONTEZUMA	48.90	SUPREMACY	66.90
HARPOON	66.90	TOWER FRA	57.90
HARPOON DATA 2	49.50	TROIKA	67.90
HARPOON SCENARIO ED	47.90	UMS II	76.90
HUNTER	SOON	WAR GAME CONS SET	46.90
LOOPZ	46.90	WHITE DEATH	56.90
M1 TANK PLATOON	76.90	WOLFPACK	76.90

## SPORTS GAMES

4D SPORTS BOXING	SOON	MONDAY NIGHT FOOTY	86.90
4D SPORTS DRIVING	SOON	M.U.D.S.	66.90
AMIGA CRICKET	46.90	PARIS-DAKAR RALLY	56.90
BRIDGE SIMULATOR	66.90	PGA WORLD TOUR GOLF	57.90
CELICA GT-4 RALLY	56.90	PRO TENNIS 2 (HD able)	66.90
CRICKET CAPTAIN	67.90	SKI OR DIE	47.90
INDIANAPOLIS 500	46.90	STREET ROD II	SOON
J. NICKLAUS UNLIMITED	76.90	TEAM SUZUKI	66.90
KICK OFF II	56.90	TOURNAMENT SOCCER	SOON
KICKOFF-FINALWHISTLE	33.90	ULTIMATE RIDE	66.90

## ADVENTURE GAMES

BAR'S TALE III	56.90	DUCK TALES	56.90
B.A.T	86.90	ELVIRA	76.90
BUCK ROGER'S	56.90	EYE OF BEHOLDER	57.90
CADAVER	56.90	HERO'S QUEST	66.90
CAPTIVE	56.90	IMMORTAL	46.90
CAPTIVE MISSION	SOON	LEGEND OF FAERGHAIL	56.90
CHAOS STRIKES BACK	66.90	MEAN STREETS	66.90
CODENAME ICEMAN	66.90	MEGATRAVELLER 1	86.90
COLONEL'S BEQUEST	66.90	OBITUS	76.90
CORPORATION	56.90	QUEST FOR GLORY II	66.90
CORPORATION MISSION	46.90	SEARCH FOR THE KING	66.90
CONQUESTS CAMELOT	66.90	SECRET MONKEY ISLAND	SOON
DEATH KNIGHTS KRYNN	56.90	SECRET SILVER BLADE	SOON
DRAGON WARS	57.90	WIZARDRY-BANE FORGE	82.90

## FLIGHT SIMS

BLUE MAX	66.90
CHUCK YEAGER AFT II	47.90
F15 STRIKE EAGLE II	SOON
F19 STEALTH FIGHTER	76.90
F29 RETALIATOR II	SOON
FALCON	56.90
FALCON MISSION DISK 2	46.90
FLIGHT OF INTRUDER	SOON
HAWK (BIRDS OF PREY)	SOON
MEGA FORTRESS (B-52)	SOON
MIG-29	66.90
SECRET W. LUFTWAFFE	SOON

## BUSINESS

CYGNUS ED PRO	129.00	PEN PAL	178.00
DATA RETRIEVE	96.90	PERS'L FINANCE MANG.	68.90
DATA RET. PROFESS'L	185.00	PHASAR V4.0	95.00
DESKTOP BUDGET	95.00	PRO PAGE V2.0	449.00
EASY LEDGERS	379.00	PROWRITE V3.1	179.00
EXCELLENCE V2.0	289.00	QUICKWRITE	97.90
FREELANCE	48.90	SUPERBASE	76.90
HOME ACCOUNTS	85.00	SUPERBASE 2	125.00
HOME FRONT	125.00	SUPERBASE PRO 4	689.00
PAGESETTER II	169.00	SYSTEM 3	129.00
PAGESTREAM V2.1	369.00	SYSTEM 3E	155.00
PAGESTR. FONTS (ea)	54.50	WORKS PLATINUM	189.00
PAGESTREAM FORMS	49.50	YOUR FAMILY TREE v2	119.00

## FREECALL

008  
ORDER  
LINE

9am-5pm Mon-Fri  
(Credit Card Orders Only  
No Enquiries Please)

008 020 633

(For all queries about prices and  
availability please use our  
Customer Service Line)

Please note that prices and  
availability are subject to  
change without notice. Any  
software product without a  
price (i.e. with "SOON") has not  
been released as at 1/5/91.

## GRAPHICS

3D PROFESSIONAL	495.00	IMAGINE	449.00
3D TEXT ANIMATOR	74.50	INTROCAD PLUS	175.00
AEIGIS GRAPH. ST'R	89.00	MODELLER 3D	115.00
ANIMATION STUDIO	245.00	PAGE FLIPPER +FX	179.00
ART DEPARTMENT	129.00	PELICAN PRESS	145.00
ART DEPARTMENT PRO	339.00	PRINTMASTER PLUS	56.90
CREDIT TEXT SCROLL	56.90	PROFESSIONAL DRAW 2	259.00
DELUXE PAINT III	98.90	PROMOTION	115.00
DELUXE PHTOLAB	98.90	SCENE GENERATOR	74.50
DELUXE PRINT II	98.90	SPECTRA COLOUR	115.00
DELUXE VIDEO III	98.90	TITLE PAGE	179.00
DESIGN 3-D	139.00	TURBO SILVER 3D	175.00
DIGI-MATE 3	59.50	TV TEXT PROF.	189.00
DIGI-PAINT 3	119.00	ULTRA DESIGN	439.00
DIRECTOR II	185.00	VISTA	145.00
DIRECTOR TOOLKIT	59.00	VISTA DATA DISKS (ea)	96.90
ELAN PERFORMER 2	189.00	VISTA PRO (Needs 3MB)	189.00
FLOOR PLAN CONST. II	118.50	X-CAD DESIGNER	229.00

## UTILITIES

AMI ALIGNM'T KIT	69.50	FAT TRACKS (Copier)	89.50
AMIGA VISION	189.00	GFA BASIC	145.00
AMOS	119.00	GP TERM	99.00
AMOS COMPILER	SOON	HI-SOFT BASIC	179.00
AReXX	74.00	HI-SOFT EXTENSION	59.50
ATONCE (PC EMUL)	549.00	KCS POWER BOARD	679.00
AZTEC C PROF.	395.00	KDV VIRUS KILLER	24.95
BENCHMARK MODULA-2	279.00	NO VIRUS	49.50
CAN DO	189.00	PELICAN PRESS	145.00
CAN DO INTRO PAK	57.90	PIXEL SCRIPT	169.00
CAN DO PRO PAK	57.90	QUARTERBACK v4.0	84.50
CROSS DOS V4.0	59.50	QUARTERBACK TOOLS	99.00
DEVPACK 2.0	149.00	SAS/LATTICE C V5.1	455.00
DIRECTORY OPUS II	49.50	SAS/LATTICE C++	559.00
DISK LABELER	59.50	STARSOFT HD BACK	69.50
DISK MECHANIC	119.00	SUPERBACK	109.00
DOCTOR AMI	59.50	SYNCHRO EXPRESS III	139.00
DOS LAB	39.50	VIDEO TOOLS ON TAP	119.00
DUNLAP UTILITIES	99.50	XCOPY + Hardware	129.00

## MUSIC

AMAS	279.00	DR T'S COPYIST DTP	449.00
AUDIO ENGINEER PROF	429.00	DR T'S TIGER CUB	119.00
AUDIO MASTER III	129.00	MASTER SOUND	119.00
BARS & PIPES	389.00	MASTER TRACKS PRO	539.00
BARS & PIPES PRO	495.00	MUSIC X JUNIOR	189.00
DELUXE MUSIC CS	98.90	PERFECT SOUND	179.00
DR T'S COPYIST APPR	149.00	QUARTET	96.50
		SOUND EXPRESS	127.50

DO YOU WANT IT  
FASTER ?!!

OVERNIGHT!  
\$10 per Parcel

Call for details  
(weight and size  
restrictions apply)

The Ultimate AMIGA Source



# WHERE IN TIME IS CARMEN SANDIEGO

by Anne Glover

After chasing Carmen Sandiego through your English, Maths and Social Science classes amongst others, as you travel halfway around the world in the pursuit of justice you come to the realisation that Carmen has really slipped your grasp this time. She is nowhere to be found, not in your world anyway. Carmen and her gang now have a new ally, a time machine to transport them through time and space. So now "we not only don't know where she is - we don't even know when she is!". *Where In Time Is Carmen Sandiego* is an excellent addition to the "Carmen Sandiego" series. It covers 1500 years of history and twelve different countries across seven continents.

Like *Where In The World ...*, you are commissioned by the ACME Detective Agency to catch Carmen and her nefarious gang as they move through time and space pillaging and plundering. Napoleon's hat, Guy Fawkes' gunpowder and Galileo's telescope are some possible targets. Will this band stop at nothing! With Gene Yuss, Russ T Hinge, Earl E Bird and Earnest Endeavour on Carmen's side your task will not be an easy one.

After signing on, the Chief will issue your assignment. You will be told which treasure has been stolen, when and where it was removed from its rightful place in time and space. You must set off without delay, your time is limited. To win the game you

must: 1. Track the criminal to his or her hideout in one of 48 possible locations. By using the clues, with a bit of research you will be able to start tracking the dastardly devil.

2. Identify the criminal using the scattered clues collected during your travels to allow a warrant for his or her arrest to be issued and the arrest to be proceeded with.

To provide a bit of added assistance you are issued with a New American Desk Encyclopedia to plough through for a few essential clues. You will need to be quite profi-



cient in your delving or enlist the help of a colleague as your time allowance will quickly evaporate and the hoodlums will escape. On screen, a capture robot is supplied to bag your prey after the warrant has been issued.



The Chronoskimmer is your most useful piece of technology; it allows you to travel through time and space as well as to electronically scan the crime scene for clues and to translate conversations. All pretty heavy duty for the new recruit, but this search for such amoral criminals is a seri-

ous business. If we mean to find them in this technological age we need to be one step ahead of the criminal mind and the criminal's technology.

Old hands from previous *Carmen Sandiego* escapades will take no time at all to become familiar with the situation at hand. The new recruit enters the Agency as a Time Cadet. After a few successful cases under your belt your progression up the ranking



will begin. However as you are promoted the cases become more difficult. An outstanding super sleuth will be inducted into the hall of fame and eventually be retired from action to live a peaceful life with a well deserved annuity. Those who cannot live without the thrill of a chase are welcomed back under an alias.

Teachers will be pleased to know that up to 24 games may be saved at any one time, giving all your budding Time Cadets a chance to develop into Super Time Sleuths. However this game will more often be played by groups of students when it is in the classroom situation. Working as a co-operative and efficient group, students will be able to pit their historical knowledge and research skills against the likes of Lynn Gweeny, Nosmo King as well as Carmen, to achieve a short term goal.

## Conclusion

Another great game in the *Carmen Sandiego* series. This time giving a taste of History as well as Geography. Like its predecessor *Where In The World Is Carmen Sandiego*, *Where In Time..* lends itself to having a wealth of educational activities, across many areas of the curriculum, built around it. A great piece of "edu-tainment".

Distributed by:

Dataflow  
02 331 6153

RRP:

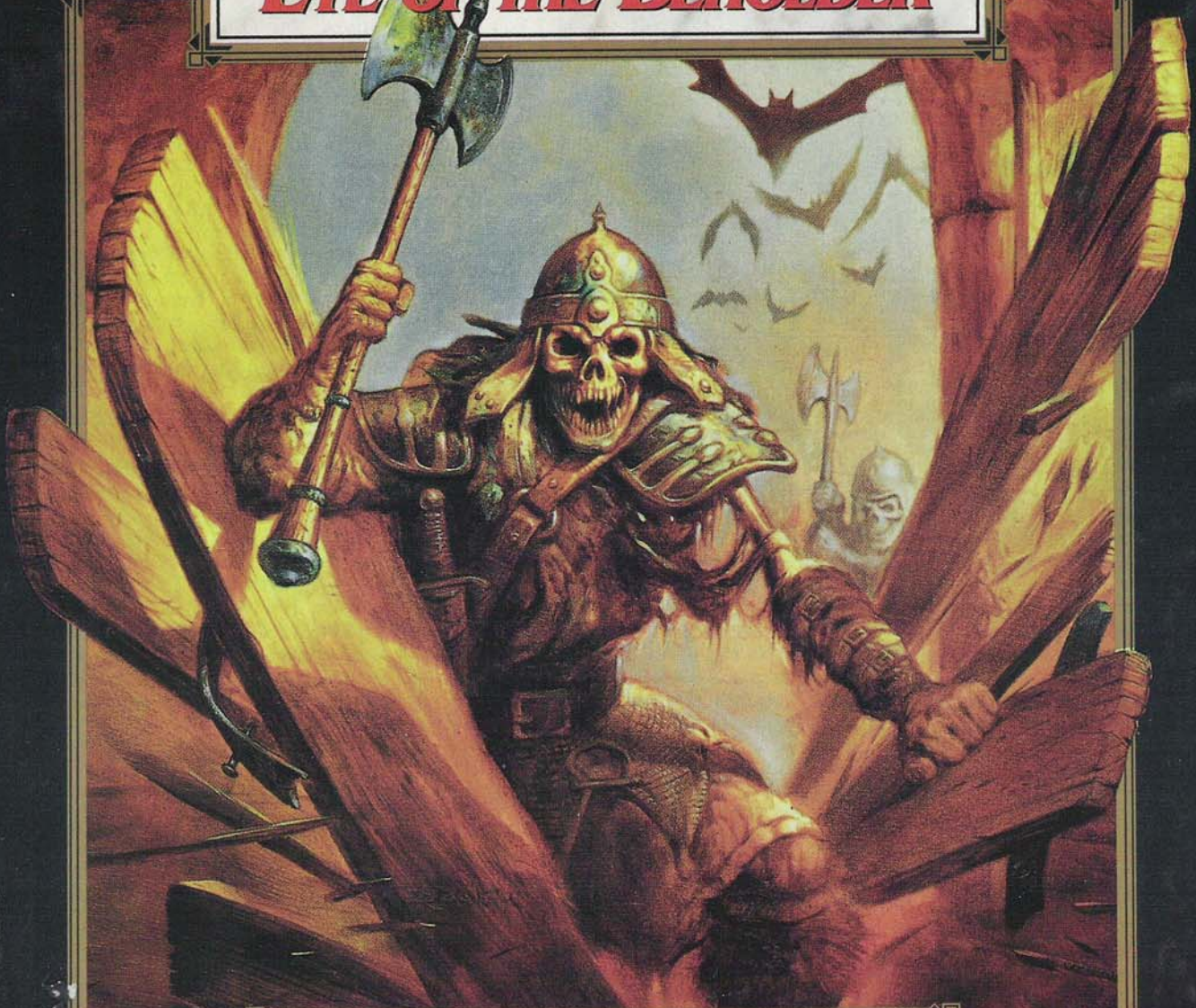
Amiga \$79.95

Teachers kit is \$20.00



OFFICIAL  
**Advanced  
Dungeons & Dragons®**  
COMPUTER PRODUCT

**EYE OF THE BEHOLDER**



**A LEGEND SERIES**  
Fantasy Role-Playing Saga, Vol. I

©1990 TSR, Inc.  
©1990 Strategic  
Simulations, Inc.  
All rights reserved

Now  
available  
for Amiga

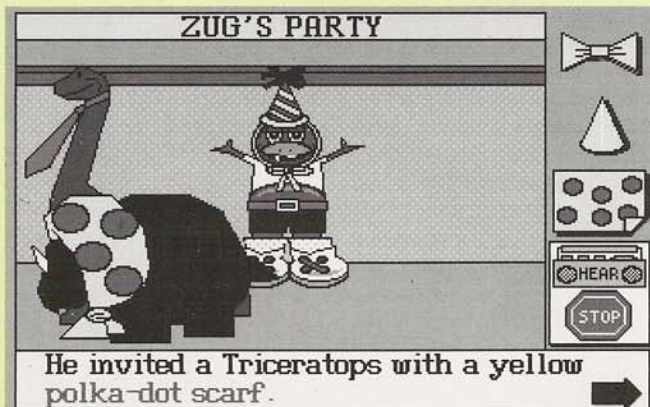


STRATEGIC SIMULATIONS, INC.®



Distributed by  
Electronic Arts  
4/46 Smith St  
Southport Qld 4215  
Sales Order Hotline  
008 074 277

## Dinosaur Kit Discovery



Zug the Megasaurus in jeans and a baseball cap presents... *Dinosaur Discovery Kit*. This program has fast become an institution in our household. It is simply known affectionately as "Zug". I have been known to dig around in the disk box for an infuriatingly lengthy amount of time trying to find "Zug". Only after checking the box do I remember that the title of the much desired disk is *Dinosaur Discovery Kit*. My junior reviewer, who is often swamped with software and doesn't hesitate to give programs the "bit boring" rating, gives "Zug" the ultimate accolade (for a 4-year-old) of "it's really great, I just love it".

"Zug" would probably be a more appropriate title for this piece of software. At least I would be able to find it before the 4-year-old does her own "finding" and scatters disks like frisbees in the wind! It is not, as its title suggests, a huge wealth of information on dinosaurs, nor is it any sort of database on dinosaur facts.

"Zug" is actually a more general

Distributed by:  
Dataflow  
02 331 6153

RRP: Amiga \$54.95



**First Byte**

educational program with a heavy emphasis on pre-reading and early reading skills development. The box tells us that such early reading skills as: picture word connections, visual memory, visual discrimination, colour discrimination, problem solving, reading simple sentences and short stories are covered using "Zug".

This program is designed for 3-8 year olds and is another excellent talking program out of the First Byte stable. Children in the lower end of that age range will enjoy it immensely as they develop their skills, children in the upper end of that age range will also have fun as they improve their skills further.

Your child's name can be entered into the program, so that with a bit of phonetic help from you Zug will be talking to your child.

*Dinosaur Discovery Kit* has three activities to choose from:

**1. Story Maker:** Here children can create and illustrate a story by selecting from a choice of graphics. Each time a sentence is presented with the last word missing. The child is required to select from a choice of two or three different symbols to complete the sentence to their liking. There are no wrong answers. For example "One day Zug decided to have a party at (his house) or (in a park)" and so the story goes on, with the child guiding the direction and content from a range of options. Each time the completed sentence is presented and the associated picture appears on the screen.

With three stories to choose from, each with about ten sentences and three different options, a multitude of different stories can be produced. As you can

see they are fun stories about Zug and not heavy facts about a Megasaurus. Once the story has been completed the child can hear their story again and again if they wish. They can see the pictures and make a print-out of the story only, or of the story and the pictures together.

**2. The Colouring Book:** A number of large and realistic (not cartoon) dinosaurs are available for colouring and printing. An interesting fact about the chosen dinosaur is also presented. Twelve colours can be used to fill the parts of the dinosaur and six dinosaurs are available to choose from.

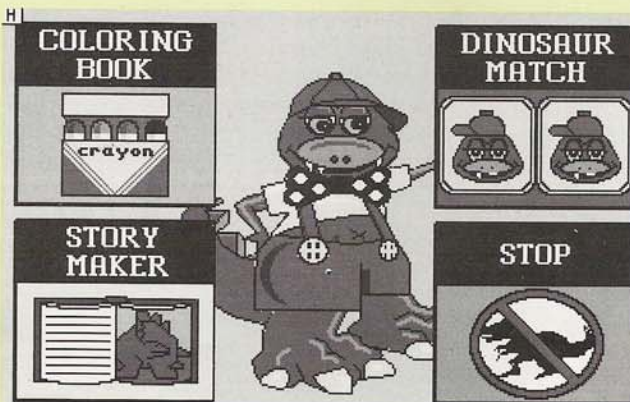
**3. Dinosaur Match:** This is a matching game like "Concentration" where "real" dinosaurs, their shadows or even Zug in fancy dress can be selected as the figures to be matched. Options include a choice from 10 to 18 cards, playing on your own, with Zug or with a friend. If the child chooses Zug as a playmate he can ask him to be "silly", "smart" or "very smart" depending on the level of difficulty desired.

## Conclusion

*Dinosaur Discovery Kit* is an excellent piece of "edu-tainment" for young children. This one won't be gathering any dust on the shelves, it is a lot of fun. While it doesn't cover the widest range of educational activities, what it does do, it does well.

Don't expect the children to learn a lot about dinosaurs using this program as its main objective is to teach and reinforce pre-reading and early reading skills. Dinosaurs provide the vehicle to achieve this objective in a playful manner and let's face it, kids just love dinosaurs!

by Anne Glover



# Maxwell's 24 HOUR MAIL ORDER SOFTWARE GALORE

## GUARANTEED SERVICE ★ SAME DAY DESPATCH\*

### SOFTWARE... FIRST WITH THE LATEST... NEW TITLES DAILY

#### 1000's OF TITLES ★ AMIGA ★ IBM 5.25" AND 3.5" ★ C 64 ★ C 128

##### ★ C64 TOP HITS ★

DEATH KNIGHTS OF KRYNN	✓49.95
SWIV	✓49.95
TURRICAN II	✓49.95
STAR CONTROL	✓39.95
SUPER MONACO GRAND PRIX	✓39.95
ACTION REPLAY VI	✓129.00
EXPERT CARTRIDGE	✓99.00
VIALE ADAPTOR	✓49.95
BARDS TALE TRILOGY PACK	✓49.95
VIZ	✓39.95
BACK TO THE FUTURE III	✓39.95
LAST NINJA III	✓39.95
CRACK DOWN	✓35.95
SCULL AND CROSSBONES	✓39.95
FIRE AND FORGET II	✓49.95
ATOM ANT	✓29.95
PICK AND PIKE	✓49.95

##### ★ MOST AMIGA TITLES AVAILABLE IN C64 FORMAT

##### ✓ = NEW

##### ★ PRICE MATCH! ★

Any dealer's regular price advertised in this issue

##### AMIGA DATABASE

DATA RETRIEVE	99.00
FREELANCE	49.95
INFOFILE	99.95
SUPERBASE PERSONAL	159.95
SUPERBASE PERSONAL II	199.95
SUPERBASE PROFESS V3	399.00

##### AMIGA WORD PROC.

EXCELLENCE V.2	299.00
MEDIA LINE FONTS	49.95
OPTICAL MOUSE	149.00
PAGESSETTER II	199.00
PAGESTREAM II	399.00
PAGESTREAM FONT	59.95
PEN PAL	199.00
PROFESSIONAL PAGE 1.3	399.00
PROF PAGE TEMPLATES	99.95
PROWRITE 3.1	199.00
PUBLISHERS CHOICE	199.95
SCRIBBLE PLATINUM ED	99.95
TRONS WRITE	✓99.00
WORD PERFECT	449.00

##### AMIGA SPREADSHEET

ADVANTAGE	299.00
SUPERPLAN	149.00

##### AMIGA GAMES

3D CONSTRUCTION KIT	✓129.95
16 BIT HIT MACHINE	59.95
AG COLADE PRO SPORTS CHALL	✓59.95
A.D.S.	59.95
ADIDAS TIE-BREAK TENNIS	59.95
AFTER THE WAR	59.95
APPRENTICE	49.95
ARMADA	49.95
BACK TO THE FUTURE III	✓59.95
BANDIT KINGS ANCIENT CHINA	99.95
BARDS TALE	49.95
BARDS TALE III	✓49.95
B.A.T.	89.95
BEACH 2	59.95
BETRAYAL	89.95
BLADE WARRIOR	59.95
BLITZKRIEG ARDENNES	89.95
BLITZKRIEG MAY 1940	79.95
BLOCKOUT	49.95
BLOODWICH	59.95
BLOODWICH DATA DISK	39.95
BOMBER	59.95
BOMBER BOB	✓49.95
BOULDERDASH CONSTR SET	✓19.95
BRAI	✓69.95
BRIDGE PLAYER 2000	54.95
BUDOKAN	59.95
CADAVRE	59.95
CAPTIVE	59.95
CARVE UP	✓69.95
CASINO GAMBLING	59.95
CELICA GT4 RALLY	59.95
CHASE HQ 2	79.95
CHECKMATE	69.95
CHESS MASTER 2100	69.95
CHESSPLAYER 2100	59.95
CHIPS CHALLENGE	✓59.95
CHUCK YEAGER A.F.T. II	✓49.95
CINEMAWARE 3-IN-1	79.95
CODENAME ICEMAN	59.95
COIN OF HITS I	✓59.95

##### CONQUEROR

CONQUEST OF CAMELOT	59.95
CORPORATION II	49.95
CRAP'S ACADEMY	49.95
CRICKET CAPTAIN	✓49.95
DAILY DOUBLE	✓49.95
DAN DARE III	49.95
DAS BOOT	✓59.95
DEBUT	✓59.95
DESSERT PACK	✓59.95
DICK TRACY	59.95
DOUBLE DRAGON II	54.95
DRAGON FLIGHT	✓59.95
DRAGONS OF FLAME	49.95
DRAGONS LAIR II	89.95
DRAXHEN	59.95
DUCK TALES	59.95
DUNGEON MASTER ASSISTANT	49.95
DUNGEON MASTER EDITOR	49.95
DUNGEON QUEST	79.95
EL VIMUT	89.95
ESCAPE FROM CALDITZ	69.95
F-19 STEALTH FIGHTER	89.95
FALCON MISSION II	39.95
FINAL COUNTDOWN	49.95
FINAL CONFLICT	89.95
FIRE & BRIMSTONE	59.95
FIRST CONTACT	59.95
FLIGHT SIMULATOR II	89.95
FSII HAWAIIAN ODYSSEY	44.95
FSII JAPAN TOKYO SAKA	52.95
FSII WEST EUROPE SCENERY	39.95
FUTURE BIKE SIMULATOR	39.95
F29 RETALIATOR	59.95
FUTURE WARS	59.95
GLOBAL COMMANDER	89.95
GOODS	49.95
GOD OF THE REALM	✓49.95
GRAND CANYON	59.95
GREMLINS II	59.95
HARD AND HEAVY	59.95
HARD DRIVING II	89.95
HARLEY DAVIDSON	89.95
HERCULES	89.95
HILLSFAR	89.95
HILL STREET BLUES	✓89.95
HORROR ZOMBIES / CRYPT	59.95
HUNT FOR RED OCTOBER	44.95
HYDRA	49.95
IMPERIUM	49.95
INDIANAPOLIS 500	49.95
INSECTS IN SPACE	49.95
JUDGE DREDD	✓44.95
KINGS BOUNTY	59.95
IT CAME FROM THE DESERT	59.95
LEGEND OF FAERIEHALL	69.95
LEISURE SUIT LARRY II	59.95
LEISURE SUIT LARRY III	69.95
LEMMINGS	✓69.95
LOCK	59.95
LOCK N' LOAD	59.95
LOTUS ESPRIT TURBO	69.95
M.T. TANK PLATOON	79.95
MANHUNTER NEW YORK	69.95
MC 29 FULCRUM	69.95
MEAN STREETS	✓69.95
MEGA TRAVELLER	69.95
MICROLEAGUE WRESTLING	79.95
MIDWINTER	69.95
MIGHTY BOMBBLACK	✓59.95
MONKEY RACER	✓59.95
MONTE PYTHON	89.95
MYSTICAL	✓89.95
NAM	89.95
NARC	69.95
NIGHT BREED ACTION GAME	59.95
NITRO	59.95
NOBUNAGAS AMBITION	89.95
NORTH ATLANTIC CONVOY	49.95
OBLIVION	79.95
OVERLUN	59.95
PANL	59.95
PANZA KICK BOXER	59.95
PGA TOUR GOLF	✓59.95
PLOTTING	✓59.95
POQUEST II	59.95
POOLS OF RADIANCE	64.95
POPULOUS PROMISED LANDS	39.95
POWER PINBALL	59.95
PREDATOR II	✓69.95
PREHISTORIC TALE	✓69.95

##### PRO TENNIS TOUR II

PROFESSOR MARIARTE	49.95
PROJECTILE	49.95
QUEST FOR GLORY II	89.95
RANK	59.95
RICK DANGEROUS II	59.95
RORKE'S RIFT	59.95
ROTOR	29.95
RUFF AND REDDY	39.95
SCULL AND CROSSBONES	✓49.95
SEARCH FOR THE KING	✓59.95
SECOND FRONT	59.95
SECRET OF MONKEY ISLAND	✓59.95
SEGA ACTION PACK	49.95
SHADOW WARRIORS	59.95
SHINOBI	49.95
SHOCK WAVE	✓59.95
SIM CITY	84.95
SIM CITY TERRAIN EDITOR	34.95
SIM CITY GRAPHICS I	✓59.95
SIM CITY GRAPHICS II	✓59.95
SMULGRA	89.95
SPACE ACE	89.95
SPACE DEFENCE INITIATIVE	59.95
SPACE ROGUE	49.95
SPEED BALL II	89.95
SPORTING GOLD	89.95
SPOT THE COMPUTER GAME	✓59.95
STAR BLADE	59.95
STELLAR 7	✓59.95
STORY SO FAR VOL 3	49.95
STRIDER 2	✓59.95
STUN RUNNER	69.95
TEAM SUZUKI	89.95
TEAM YANKEE	89.95
TEST DRIVE II MUSCLE CARS	39.95
TEST DRIVE II CALIFORNIA	39.95
THRILL TIME PLATINUM II	89.95
TOTAL RECALL	69.95
TOURNAMENT GOLF	59.95
T.N.T.	49.95
TRAD II	59.95
TURRICAN II	✓69.95
TYPHOON OF STEEL	49.95
ULTIMA IV	49.95
ULTIMA V	79.95
ULTIMATE GOLF	59.95
ULTIMATE RIDE	59.95
U.M.S. II	69.95
UNIVERSE 3	59.95
UNTOUCHABLES	59.95
VIZ	✓69.95
WAR GAME CONSTRUCTION	✓69.95
WARLOCK	59.95
WARLORD	59.95
WELL THIS	59.95
WHERE IN USA IS CS?	49.95
WHERE IN WORLD IS CS?	79.95
WHERE IN EUROPE IS CS?	79.95
WHERE IN TIME IS CS?	79.95
WILD STREETS	59.95
WINGS	79.95
XENOMORPH	49.95
ZOMBI	59.95

##### AMIGA EDUCATION

ASOS TRAINING VIDEO	24.95
ASOS WORKBENCH VIDEO	24.95
ANIMAL KINGDOM	69.95
AMIGA TRAINING VIDEO	50.00
AT THE ZOO	69.95
DISCOVER MATH	39.95
DISCOVER CHEMISTRY	39.95
DISCOVER NUMBERS	39.95
DISCOVER ALPHABET	39.95
DISCOVERY MATHS SPELL	64.95
FUN SCHOOL 2 AGES 6-8	49.95
FUN SCHOOL 2 OVER 8	49.95
FUN SCHOOL 2 UNDER 6	59.95
KIDS COLLECTION	69.95
KINDERAMA	52.95
LOGO	65.00
MAGIC MATH	✓59.95
MATH BLASTER PLUS	79.95
MATH MANIA	59.95
MATCH IT	49.95
MATH MULTIPLICATION	54.95
PRIMARY MATHS	✓59.95
READ & RHYME	✓59.95
RHYMING NOTEBOOK	59.95
SESAME ST NUMBERS	89.95
SESAME ST LETTERS	89.95
SPEED READ	59.95
SPELLBOUND	59.95
WORLD ATLAS	89.95

##### AMIGA BUSINESS

BEST	✓599.00
DESKTOP BUDGET	79.00
ELECTRONIC CASH BOOK	199.00
ELECTRONIC DEBTORS	249.00
HOME ACCOUNTS	119.00
HOME FRONT	125.00
PHASAR 4	134.95
SYBZ EASYLEDGER	399.00
SYBZ SERVICE INDUSTRY	549.00
SYSTEM II	129.00
WHO WHAT WHEN WHERE	59.95
WORKS: PLATINUM EDITION	199.00

##### AMIGA UTILITIES

AMAX II	CALL
AMIGADOS 1.3 ENHANCER PK	139.00
AMOS	139.00
AREXX COMPIER	89.95
ARGASMA	89.95
ASSEM-PRO	169.00
BBC EMULATOR	✓129.95
CROSS DOS	49.95
DEVPAC 2	99.95
DISK 2 64128-AMIGA TXFER	74.95
DOSLAB	44.95
DOS-TO-DOS	89.95
DR AMI	69.95
F.A. BASIC	99.00
G.F.A. BASIC 3.5	149.00
H-SOFT BASIC	254.95
HYPER BOOK	✓79.95
INNOVATIONS II	99.95
INNOVATIONS III	349.00
J.FORTH PRO	74.95
KILL DA VIRUS	✓499.00
LATTIC C.V.5.04	85.00
MAC 2 DOS	149.00
QUARTERBACK 1.4	89.00
QUARTERBACK TOOLS	129.00
SUPERBACK	99.95
ULTRACAD PLUS	149.00
VIRUS KILLER (COMMAT)	39.95
X-SPECS	199.00

##### AMIGA GRAPHICS/MUSIC

ANIMATE 3D	229.00
ART DEPARTMENT	349.00
ART DEPARTMENT PROFFER	✓399.00
AUDIO ENGINEER PLUS	399.00
AUDIO MASTER II	179.00
AUSTRALIAN GRAPHICS ATLAS	✓89.95
AWARD MAKER ED DISK	52.95
AWARD MAKER PLUS	74.95
AWARD MAKER SPORTS	74.95
BIRD AND PIRG	399.00
BROADCAST TITLER	CALL
CAN DO	219.00
CAN DO PRO PACK	69.95
DESIGN 3D	119.00
DIGIPANT II	149.95
DIGIVIEW GOLD IV	349.00
DIGIWORKS 3D	199.00
DELUXE MUSIC CONSTR SET	✓89.95
DELUXE PAINT II	✓89.95
DELUXE PAINT III HELP	79.00
DELUXE PRINT	✓89.95
DELUXE VIDEO III	199.00
DIRECTOR II	64.95
DIRECTOR TOOLKIT	99.95
DR TS MID RECORD STUDIO	99.95
DR TS CASIO KEYS MODULE	399.95
DR TS COP VIST PROFFER	499.00
ELAN PERFORMER	89.95
FLOOR PLAN CONSTRUCT	79.95
FORMATION	119.95
FUTURE DESIGN 3D	49.95
GOLD DISK TYPE DESIGNER	✓79.95
GOLD DISK TYPE DECORATIVE	✓79.95
GOLD DISK TYPE PUBLISHER	✓79.95
GOLD DISK TYPE VIDEO	✓79.95
IMAGINE	479.00
INTERCHANGE	89.95
INTROCAD PLUS	199.00
KARA FONTS I	104.95
KARA HEADLINE FONTS	89.95
KARA ANIM FONTS III	79.95
KARA STARFIELDS	89.95
MASTERTACKS PRO	549.00
MOVIE SETTER	139.95
MUSIC X	✓299.00
MUSIC X	89.95
MUSICIAN	89.95
MYPRINT	69.95
NINJA TURTLES COLOURING BK	49.95
OUTLINE FONTS	CALL
PERFECT SOUND DIGIT	199.00
PIXEL SCRIPT (PSTSCR DRV)	199.00
PRINT MASTER ART GALL 2	89.95

##### PRO-VIDEO PLUS

PRO VIDEO POST	CALL
PROFESSIONAL DRAW	375.00
SCULPT 4D	799.00
SCULPT-ANIMATE 4D	799.00
SCULPT-ANIMATE 3D XL IMPR	269.00
SOFT CLIPS I	✓109.95
SOFT CLIPS II	✓109.95
SONIX	99.00
TITLE PAGE	189.00
TOOLS ON TAP	79.95
TOP FORM	119.95
TV SHOW PROFESSIONAL	269.00
TV SHOW II	✓159.00
TV TEXT PROFESSIONAL	269.00
TOP FORM (FORM DESIGNER)	119.95
TURBO SILVER	249.00
VIDEO TITLER NEW	✓119.95
VIDEO WIZARD	300.00
VIDEOSCAPE 3D	99.00
VIDEO STUDIO	199.00
VISTA PRO	229.95
VIVA CHROME	50.00
VIVA	299.00
X-CAD DESIGNER	229.00
ZUMA FONTS IV	54.95

##### AMIGA SPECIAL INTEREST

ATLAK III	69.00
BIKE READER	✓139.95
DISTANT SUNS	89.95
DISTANT SUNS EXPANSION DISK	49.95
FAMILY TREE	89.95
GP TERM V4.0	99.95
SECURITIES ANALYST	129.95
WEATHER WATCHER	✓79.95


##### ★ HARDWARE ★

A2000 PROFESSIONAL	CALL
A3000 / 25	CALL
A2000	CALL
A500 DELUXE PACK	CALL
AMIGA STREAMING TAPE	CALL
AMIGA BRIDGEBOARDS	CALL
AMIGA NICE FROM	✓59.95
B.MICE FROM	✓79.95
GENLOCKS FROM	✓299.00
RAM CARDS 512K TO 8MB	CALL
HARD DISK CONTROLLERS	CALL
MONITORS FROM	369.00
PRINTERS FROM	249.00
C64 PRINTER INTERFACES	127.00
C64 MOCEM ADAPTOR	49.95
4 RS232C IFACE	99.00
64 SERIAL IFACE	144.00
MODEMS	CALL
INFERA RED JOYSTICKS	39.00
DIGIVIEW COLOUR SPLITTER	CALL
COLOUR SCANNERS	CALL
VIDI DIGITISER	CALL
VIDI RGB SPLITTER	299.00
SLIM LINE DRIVE	169.00
TRACK DISPLAY DRIVE	219.00
GVP CARDS FULL RANGE	CALL


##### ★ BOOKS & MAGS ★

SIERRA CLUE BOOKS	
AMIGADOS OREFIG ABAC	
AMIGADOS IN & OUTV.2	
KIDS/AMIGA/COMPUTE	
BARDS TALE 1025 CLUB BOOK	
AMIGA MACH LANG PROG	
AMIGA DRIVE IN/OUT	
AMIGA BASIC IN/OUT	
SECOND BOOK AMIGA	
AMIGA FORMAT BOOK + 2	
AMIGA C FOR BEGINNERS	
AMIGA C FOR BEGINNERS	
AMIGA SYSTEM PROG GUI	
AMIGA MACHINE LANG	
DESKTOP VIDEO	
MAPPING THE AMIGA	
QUEST FOR CLUES	
QUEST FOR CLUES II	
HINT BOOKS	
ART OF DESKTOP PUBLISH	
AMIGA COMPANION 2ND E	
TECHNICAL REF MANUAL	

**satchel**  
Angle Park Computing Centre · Education Department of South Australia



**KADIMAKARA**



**Creatures of the Dreaming**

An illustrated database  
for the Commodore 64 and Amstrad 6128

IF YOU ARE LOOKING for some real Dinosaur facts, *Kadimakara* may be the program for you! *Kadimakara* is a database of Australian prehistoric fauna, which allows you to discover the world of the giant amphibians, the dinosaurs, the mega marsupials and more. Fifty members of Australia's prehistory are covered in this program. Designed for upper Primary and lower Secondary School children, it is ideal for use in the classroom or library context and was designed and developed by "Satchel" (of the S.A. Department of Education).

This is a completely different program to the *Dinosaur Discovery Kit*, it has quite different objectives and it should reach a different market. *Kadimakara* allows Australian students to become conversant with the fascinating and incredible fauna of their own country's prehistory. Up until now most Australian children were much more famil-

of North America's prehistory simply because more had been written and produced about it. *Kadimakara* is an attempt to address this imbalance.

The fauna of Australia's prehistory is as fascinating as that of any other part of the world. With Kronosaurus - the largest marine reptile ever found, Dromornis Stirtoni - the largest bird ever known and Megalania Prisca - a 7 metre long goanna, and so it goes on. A really fascinating part of our prehistory that up until now was an under-resourced topic.

As a database it doesn't have the razzamatazz of many other educational programs, with basic pictures and maps with habitat details etc. provided. This is

not a pretty program, it is however an informative and useful one. It will need a bit of thought to put it effectively to use. No plonking the kids down in front of the Amiga and leaving them to it with this one!

This program should form an integral part of a learning experience and as such needs some planning by the teacher to provide it with a useful context. It is a part of the lesson, not the lesson on its own. This program demonstrates one of the many roles of the modern day teacher. After determining the needs of the students and his or her objectives within the guidelines of the appropriate educational authorities, resources need to be gathered, evaluated then modified and or combined to assist in achieving the original objectives. The old days of relying on one text book are long gone in most subject areas.

As well as providing information on Australia's prehistoric fauna, *Kadimakara* can be used to study English, Maths, Social Science, Art and Science. An excellent booklet is provided for teachers on request.

Further, *Kadimakara* can be used to demonstrate the benefits and uses of a data base, assist in showing students how to search for information, sort, retrieve and present material. If Australian prehistoric fauna is the topic of study, it will cover that area as well.

However *Kadimakara* will best be used as it was designed, as one source of information amongst many others. Both school teachers and home schoolers will achieve the most from this product if they keep this idea in mind.

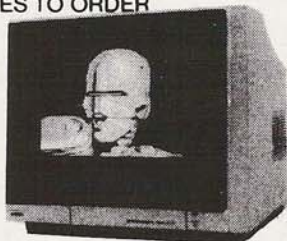
Both *Kadimakara* and the *Dinosaur Discovery Kit* demonstrate the importance of examining carefully the objectives of a piece of software rather than purchasing simply on the basis of topics covered. □

*by Anne Glover*

## HI-TEK MONITOR FILTER

COMMODORE 1081: 1084: PHILIPS 8833: 8854:  
ALL OTHER TYPES TO ORDER

Our high quality filters are made from optical quality 3mm Acrylic specially tinted. It's unique filtering qualities have been extensively tested and approved by Amiga user groups, doctors and government offices.



Made in Australia 10 year guarantee

**\$39.95**

inc P & P

- TOTALLY ELIMINATES MONITOR GLARE.
- RESOLVES LONG EXPOSURE ADVERSE EFFECTS.
- PROTECTS FROM R.S.I. EYE STRAIN.
- ENHANCES ON SCREEN COLOURS.
- INCREASES IMAGE SHARPNESS.
- MAKES INTERLACE MODE VIABLE.

**HARRIS HI-TEK PTY. LTD.**

19 Maloney St, Blacktown, NSW 2148

Tel: (02) 671 1856

MONITOR TYPE

PAYMENT: PLEASE INDICATE METHOD ☒ PLEASE DEBIT MY CREDIT CARD  
VISA - MASTERCARD - BANKCARD

VISA - MASTERCARD - BANKCARD

☐    ☐☐☐☐    ☐☐☐☐    ☐☐☐☐    ☐☐☐☐

☐ CHEQUE - P.O.

EXPIRY DATE

MR/MS/MRS

SURNAME

INITIALS

SIGNATURE

ADDRESS

POST CODE

**Distributed by:**

Dataflow

02 331 6153

RRP:

C 64

\$69.95

Amiga

\$69.95

Produced by Satchet in S. A.

# SOLID GOLD

Games for the '90s from  **Pacronics**

## THE BIG BOX - AMIGA

The compilation to end all compilations!  
10 Amazing games all in one. Just look at titles:

Teenage queen	Purple Saturn Day
Bubble Plus	Captain Blood
Jumpin Jackson	Purple Saturn Day
Tintin on the moon	Stir Crazy
Captain Blood	Safari Guns

This would have to be the greatest games value ever for the Amiga at an amazing recommended retail price of just \$79.95!

Only  
\$79.95!

## TOWER FRA - Amiga Only

If you are looking for authenticity and accuracy in a simulation, TOWER FRA place you right in the hot seat. Take control of an entire airport, departures, landings, scheduling, queuing, the lot. Try and keep them apart!

## LOOPZ - Amiga, PC and C64

A Brilliant puzzle type game - so brilliant that it has been banned from the Pacronics' offices due to the amount of time we all spent playing it! LOOPZ can be learnt in minutes but will have you tearing you're hair out in frustration.

## CRICKET CAPTAIN - Amiga Only

Arcade section with management thrown in! You take the part of a cricket team manager, selecting teams, buying and selling players and copping the flak from the board if they don't perform.

## WORLD CHAMPIONSHIP BOXING MANAGER - Amiga and PC

WORLD CHAMPIONSHIP BOXING MANAGER puts you in control of up to 5 novice boxers. You must use your skills as a promoter/manager to arrange fights that will move them up the rankings. Beware of the other managers as they will try to steal promising boxers from your stable.

## BOMBER BOB - Amiga Only

Cute but addictive, BOMBER BOB will have you coming back for hours! An arcade shoot-em-up, it is brilliantly presented with unbelievable cute graphics in the Rainbow Island vein.

## THE BIG BOX C-64

All great titles and recent releases. Simply the greatest games value even for the Commodore 64

Ghostbusters	Enduro Racer	Hacker
Spindizzy	Rampage	Corperation
Explorer	Ace 2088	Supersprint
Wonderboy	Guadalcanal	Championship Basketball
Aliens	Knightmare	Championship Football
Galactic Games	Real Ghostbusters	Championship Baseball
Dandy	Mermaid Madness	Star Raiders
Park Patrol	Prodigy	I.S.S.
High Frontier	Firetrap	Super Hang On
Kamov	Gee Bee Air Rally	Big Trouble in Little China

Only  
\$49.95!

and just look at the price . . . \$49.95!

## Dragon Flight - Amiga Only

In days of yore, dragons were not feared - they were known as the friends and advisors of man. Over the centuries, war, demons and pestilence have reduced both the numbers and potency of dragons to the point of extinction. You must lead your intrepid party of four in search of the magic that will restore the potency of the dragons. DRAGONS FLIGHT is the end result of then 'man years' of technical development, and is truly state of the art in role paying game s with 10 dungeons, 14 levels, 12 cities and more than 150 usable items.

## A Prehistorical Tale - Amiga Only

Before man drew breath, the dinosaurs rules the Earth. A Prehistoric Tale is a 'platform and ladders' style game in the classic mould. You play the part of a time traveller who has to save the dinosaurs from extinction. Brilliant graphics and a stunningly addictive simultaneous two player mode!!

## Thalion - The First Year - Amiga Only

From Martial Arts to inter stellar arcade shoot-em ups to arcade adventures on to role playing games, this compendium shows why Thalion are now known as one of the best software houses around. CHAMBERS OF SHAOLIN, WARP, LEAVIN' TERAMIS and THE SEVEN GATES OF JAMBALA give you months of the very best gameplay around!

PACTRONICS: N.S.W. Pacronics Pty Ltd, 98 Carnarvon St, Sileverwater. (02) 748 4700 • Victoria Pacronics Pty Ltd, 51-55 Johnston Street, Fitzroy (03) 419 4644 • Queensland Pacronics Pty Ltd, 12 Stratton St, Newstead (07) 854 1982 • South Australia Contact N.S.W. or Victoria Office • Western Australia Pacronics, Unit 12, 113 High Rd, Willeton (09) 354 1122 • Tasmania ESP Marketing, 52 Elphinstone Rd, Mt. Stuart (002) 781 606

Available From:

Computer Spot (All Branches) Grace Bros., Myer, Harvey Norman, Harris Scarfe, Maxwells Office Equipment, Midi Mouse Computers, United Computer Stores - all branches and all good computer retailers.



## Flicker Free Video™

With Flicker Free Video (FFV) and a standard VGA or multi-frequency monitor, any Amiga® 500, 1000 or 2000 computer can produce a high quality display, free of interlace flicker and visible scan lines. Installation requires no soldering or advanced technical knowledge and frees the video slot in Amiga 2000 computers for other uses. FFV is compatible with all software, works in low and high resolutions interlaced or not, and has no genlock conflicts. FFV uses a multi-layer circuit board and surface-mounted components, packing a lot of power into a very small space. Both PAL and NTSC are automatically recognized and fully supported. Full overscan is supported, not just a limited overscan. Three megabits of random access memory are used to ensure compatibility and overscan screens as large as the Amiga can produce.

**INTRODUCTORY OFFER \$649.00**

## AdSpeed™

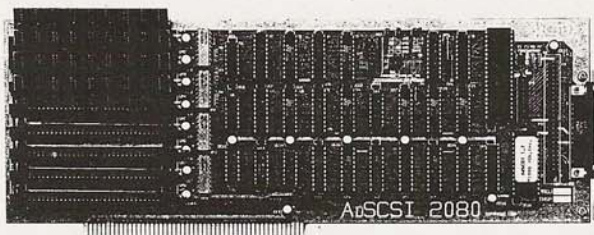
ICD expands its line of innovative enhancement products for the Amiga with the introduction of AdSpeed, a full featured 14.3 MHz 68000 accelerator for all 68000-based Amiga computers. AdSpeed differs from other accelerators by using an intelligent 16K static RAM cache to allow zero wait state execution of many operations at twice the regular speed. All programs will show improvement. AdSpeed will make your Amiga run faster than any 68000 or 68020 accelerator with on-board RAM. AdSpeed works with all 6800 based Amiga computers, including the 500, 1000, and 2000. Installation is simple and requires no soldering. AdSpeed has a software selectable true 7.16 MHz 68000 mode for 100% compatibility - your computer will run as if the stock CPU was installed. 32K of high speed static RAM is used for 16K of data/instruction cache and 16K of cache tag memory. A full read and write-through cache provides maximum speed.



**\$549.00 BONUS \$50 Cashback on return of old 68000 (\$499.00)**

## AdSCSI™ 2080

The fastest, most versatile SCSI host adapter (hard drive interface) available for the Amiga 2000 now comes in a new configuration. AdSCSI 2080 is not DMA, but its clean design and advanced caching driver provide greater throughput than any available DMA interface. All the features you want are included at no additional charge: autoboot from Fast File System partitions, Commodore® SCSI Direct and Rigid Disk Block conformance for no mountlist editing and compatibility with third party SCSI devices, and the most advanced removable media support available, including automatic DiskChange and no partitioning restrictions. AdSCSI 2080 also includes sockets for adding two, four, six, or eight megabytes of RAM using 1 megabyte SIMMs. If expansion slots are in high demand then this card could be your answer.



**AdSCSI 2080 OK RAM + 52MB Quantum LPS HDD  
BARGAIN PRICE \$999.00**

## AdIDE™

AdIDE™ provides an inexpensive alternative to a full SCSI interface. Sometimes called "AT drives", IDE drives have an embedded controller and are designed for connection to an AT PC bus. Nearly all drive manufacturers are now producing these low cost units.

AdIDE uses the same advanced software supplied with our AdSCSI host adapters. It delivers incredible speed and performance in a very small package. Features include autobooting from FastFileSystem partitions, A-Max II support, and more. AdIDE/40 is for the Amiga 2000. It fits underneath the CPU chip and uses no slot. The included 40 pin cable connects it to standard 3.5 inch hard drives.

AdIDE/44 is for mounting a 2.5 inch drive inside the Amiga 500. It includes the standard 44 pin cable and drive mounting brackets.

**Price - AdIDE-40 \$260.00  
AdIDE-44 \$290.00**

Flicker Free Video, FFV, AdSpeed and AdSCSI are trademarks of ICD, Inc. Commodore is a registered trademark of Commodore Electronics Limited. Amiga is a registered trademark of Commodore - Amiga, Inc.

## A500 Internal Hard Disk

The smallest hard drive/interface in the world is now available for mounting inside your Amiga 500! This little sweetheart gives 20 megabytes of high speed performance yet takes absolutely no desk space. Novia 20i includes complete instructions and all the hardware necessary for a simple, clean no-solder installation

**INTRODUCTORY OFFER \$999.00**

**SYQUEST 44MB removable drive \$899.00**

Australian Distributor and Registered AMIGA Hardware Developer  
Maxdrive Systems Pty Ltd  
PO Box 56, Darling Heights, Qld 4350  
Phone (008) 076 301 - Orders Only  
Enquiries/Dealer 018 717 506. Fax (076) 361 458  
VISA - BANKCARD - CHEQUE - Accepted  
NSW: (02) 523 3867 - Rob Self  
Qld: United Computers Group, Ipswich (07) 282 6233 - Royce

# Tutorial

## PART 12 by Andrew Leniart

If you're one of the readers that have written in asking for help with Ed - the workbench editor - and wish to know how to use it, then this is the issue you've been waiting for. We are going to put Ed through its paces in a moment or two.

### Who's Ed?

Ed is a text editor and is being used to write this very article. It lives on the Workbench disk in the "C" directory and is there ready to help you edit or create those fantastic script files that we've been learning about in past issues. So how do we use Ed? Easy! Ed sounds like a friendly type of soul so open up a CLI and say hello to him. Do it like this:

Ed Hello!

The disk drive spins as Ed hears himself beckoned and pops himself to the front of the screen with the message at the bottom of his window, "Creating New File". Unfortunately, Ed's friendly nature stops about right there. Grab hold of your mouse and try to find a pull down menu to help you figure out what to do next and you will be sadly disappointed. Ed has no pull down menus or online help so you first need to learn how to communicate with him. Prepare yourself for some staunch learning. Put Ed back to sleep for the time being by pressing the Escape key and then Q.

### Using Ed

Ok, first thing we need to make clear is that Ed always needs a parameter passed to him every time he is invoked. This parameter that I'm talking about is the name of the script or text file which you want to edit. This can include the full path name.

In our little fun example above, we were creating a new file called "Hello!" and had we typed anything in at that stage and saved it, then the file Hello! would have ended up saved in the di-

rectory we were currently in when we first opened up the CLI. On the other hand, if we wanted to create a new file and save it to the disk we had in DF1: we could type "ED DF1:File-Name" and so on. This is what is referred to as specifying a path. When editing an existing file on disk such as our startup-sequence, we need to specify the "path" to where that file is so Ed can find it. I.e:

Ed Df0:S/Startup-Sequence

So much for getting Ed off his butt and doing something, but where it gets a little tricky for people not used to working with Ed is how to move around within the editor and how to issue commands to speed things up a bit.

### Commanding Ed

As I mentioned before, Ed has no pull down menus with which to issue commands and instructions. Everything is done via the keyboard with the help of built in commands. There are two types: *Direct Commands* which are given by holding down the Ctrl key on your keyboard while pressing another key, and *Command Mode Commands* which are given by first pressing the "Escape" key on the keyboard and then pressing the appropriate command key. Both types of commands will be covered and explained during the course of this tutorial.

I planned to make this a hands on learning experience so, using a copy of your workbench diskette, fire up Ed by typing in the following in a CLI or Shell:

Ed Using-Ed

At the end of the exercise, this file which we are about to create is going to be a help file for you when using Ed. I will later explain how to set it up so that you can view this file quite easily from Workbench whenever you are using the editor and use it as a reference.

First thing to do is to set up the

margins in Ed to suit our purposes.

Press the Escape key once and then hit "SH" and Ed will show you what the current default settings are. This should be similar to the following:

#### Editing file using Ed

Tab distance	003
Left margin	001
Right margin	077
Block start	Unset
Block end	Unset
Buffer usage	000%

Type any character to continue. What this all means starting from the top is as follows: The first line simply tells you the name of the file that you are currently editing. In our case it's our Using-Ed help file which we are going to create. The second line tells us the distance that the cursor will travel when we hit the Tab key on our keyboard. Left and right margins are just that while Block start and end refer to which lines the blocks that we might mark to cut and/or paste text start and end. Buffer usage refers to how much buffer space is used when we use the mark block commands.

Follow the instruction Ed is giving you and press a key. The window will become blank again and we are back in square one. Now is a good time to type in some notes about the command you just learned in your own personal help file. Now for our purposes, the settings would be fine left as they are but let's set them to something different for the sake of learning how to do it. We'll make the left margin 2 and the right margin 78. This will give us a nice neat display when we view our help file later on. Do it like this:

Esc SL 2  
Esc SR 78

That's it. You won't physically see that any changes have taken place until you begin to type in text. Once you do, you will notice that Ed will "word wrap" words for you when your text reaches the 78 mark and will continue the word wrap on the second space of the next line. This eliminates the need to hit return when you reach the end of a line. Type in a few lines to see what I mean.

Now the above two commands were given in Command Mode. This is the most powerful way to issue commands when using Ed and has the most flexibility. Let's take a look



# BRIWALL

# AUSTRALIA

**BUSINESS HOURS**  
Mon to Friday  
9AM to 4.30PM

**Phone: (06) 288 0131**

**Fax: (06) 288 0337**

**24 HOUR SERVICE**



**PO BOX 9  
RIVETT ACT 2611**

## C64 / 128

### LOOKING FOR PROGRAMS MADE JUST FOR YOUR 128?

#### NEWSMAKER 128

Desktop Publishing for the 128D (or the 128 with 64K video RAM upgrade). **ONLY \$43**

#### SKETCHPAD 128

Complete drawing system for the Commodore 128 and 1351 mouse. **JUST \$39**

#### SPECTRUM 128

80-column paint package for the 128D (or 128 with 64K video RAM upgrade). **ONLY \$49**

#### HOME DESIGNER 128

Professional object-oriented CAD package for the Commodore 128. **OUR PRICE ONLY \$49**

#### BASIC 8 Package

Here's a special deal on a complete BASIC 8 library. You get both BASIC 8 and the BASIC 8 Toolkit at one low price. **OUR PRICE \$59**

## WHY CHOOSE BRIWALL?

**WE'RE  
MAILORDER  
SPECIALISTS!**

**SATISFACTION  
GUARANTEED!**

**NEW LOOK!!  
EXPANDED RANGE  
LOWER PRICES**

### PRICE MATCH

Any software advertised  
in this magazine  
**WE WILL MATCH !!!**  
(Except Specials)



**Free gift voucher with every order**

**Send now for our all new low price catalogues!**

## AMIGA

### WORD PERFECT 4.1

The ultimate in Word Processors for the Amiga Range

### Check Out These Features

Pull Down Menus for Amiga Mouse

Up to 5 Columns "Side by Side"

Automatic Hyphenation & Formatting

Spellchecker & Thesaurus

Macros & Index Generation

Supports over 200 Printers

Laser Included

### OUR CRAZY PRICE

**\$299**

Listed below is a sampling of our great range of products at excellent prices. We currently have over 1000 Amiga products (growing daily) and a great range of 64/128 products (over 400) to cater for your every requirement. We also stock a large range of utilities and books, and we guarantee all our products. Drop us a line, or phone or fax us for our free catalogues which include latest games and educational programs!

## 64/128

### UTILITIES

1750 RAM EXPANDER	399
1541/1571 DRIVE ALIGNMENT	44
1581 TOOLKIT V2	60
ASSEMBLER/MONITOR/64	60
BASIC 8	48
BASIC 8 TOOLKIT	29
BASIC COMPILER 128	90
BASIC COMPILER 64	80
BIG BLUE READER 64/128 V3.1	65
CP/M KIT	55
COBOL 128	58
COBOL 64	68
SUPER 81 UTILITIES	35
MAVERICK COPIER V5	39
DIGITALTALKER 128	39
SUPER SNAPSHOT 5 W/C128 DIS	110
SUPER SNAPSHOT V5	93
SYNRES ENHANCED	25

### BOOKS

500 C128 Q & ANSWERS	40
SUPERBASE - THE BOOK 64/128	40
TWIN CITIES 128 COMPENDIUM 1	40

### ACCESSORIES

APROSPAN 4 slot cartridge holder	49
FREEZE MACHINE	59
SUPER GRAPHIX INTERFACE JNR.	89
VIDEO RAM 64K CART. FULL	90

### CREATIVITY

ANIMATION STATION	129
HOLIDAYS & SEASONS	39
HOME DESIGNER 128	49
HOME DESIGNER/Circuit Symbol Lib.	19
NEWSMAKER 128	43
SPECTRUM 128	49
I PAINT	59

### GEOS

BECKER BASIC FOR GEOS 64	72
GEOS 64 VERSION 2	59
GEOS/PROGRAMMER 64 / 128	39
GEOCALC 128	49
FONTPAK INTERNATIONAL	39
GEOCHART 64/128	39
GEOFILE 128	49
GEOFILE 64	39
GEO/PUBLISH 64/128	49
GEOS 128 V2	69
GEODEX	64
WORD PUBLISHER 64/128	60

### GENERAL PRODUCTIVITY

POCKET FILER 2	65
POCKET PLANNER 2	65
POCKET SUPERPACK 2	145
POCKET WRITER 3 (64 OR 128)	89
SECURITY ANALYST 128	39
SUPERBASE 128 - V3	59
SUPERBASE 64	59
SUPERBASE/ScriptBk 128 Pak	130
SUPERBASE/ScriptBk 64 Pak	130
SUPERSCRIPT 128	59
SUPERSCRIPT C64	59
TECHNICAL ANALYSIS System 128	85
TECHNICAL ANALYSIS SYSTEM 64	55
BANK STREET WRITER	89
DATA MANAGER	40
SWIFT CALC 64	35
WRITE STUFF 64	40
WRITE STUFF 64 W/TALK	49
WRITE STUFF 64 C128 VERSION	49
CMS ACCOUNTING 64 OR 128	260

## AMIGA CLEARANCE SPECIALS

**HURRY !!!**

These Items Only Available  
Until Current Stocks Last

### BOOKS

C for Beginners	30
C for Advanced Prog	40
DOS Inside & Out	35
Graphics Inside & Out	45
Machine Language	35
Printers Inside & Out	50
Kids & The Amiga	30
Programmer's Guide	40

### SOFTWARE

C.A.P.E. 68K V2.5	
Assembler	99
Intro Cad	65
Teenage Mutant Turtles (Amiga & C64/128 Vers)	39
Business Card Maker	55

### HARDWARE

Mouse - Boing Optical	169
-----------------------	-----

## AMIGA

### BOOKS

AMIGA C ADVANCED FROG	45
AMIGA DOS INS & OUT	40
AMIGA GRAPHICS INS & OUT	45
AMIGA MACHINE LANGUAGE	40
AMIGA PRINTERS INS & OUT	55
AMIGA SYSTEM PROG GUIDE	45
BEST OF AMIGA TIPS/TRICKS	45
KIDS & THE AMIGA	30
PROG GDE TO AMIGA (SYBEX)	45

### GENERAL BUSINESS

CITY DESK V2.0	149
EASY LEDGERS	369
EXCELLENCE	249
MAXIPLAN	59
NAG PLUS VGOLD	109
PEN PAL	175
P.H.A.S.A.R V4	93
SUPERBASE PERSONAL 2	115
S/BASE PRO V4 (NEW)	589
WORKS PLATINUM	185

### EDUCATIONAL

BIBLE READER KJV	65
BIBLE READER NEW INT VER	85
LINKWORD EACH	43
MAVIS BEACON TYPING	65
SPELL-A-FARI	59
WHERE IS CARMEN SD EACH	65
YOUR FAMILY TREE V3	85

### ENTERTAINMENT

BACK TO THE FUTURE 3	65
CAR VUP	56
DEATH KNIGHTS OF KRYNN	69
EXTERMINATOR	65
FEUDAL LORDS	65
FISTS OF FURY II	62
GODS	62
HARD DRIVIN II	62

HORROR ZOMBIES	62
ISHIDO	62
LES SUIT LARRY TRIPLEPAK	109
MONDAY NIGHT FOOTBALL	79
M.U.D.S.	62
NARCO POLICE	62
NAVY S.E.A.L.S.	62
PANZER KICK BOXING	62
PENTHOUSE JIGSAW (R RATED)	48
PRO TENNIS TOUR II	62
QUEST FOR GLORY II	79
RAILROAD TYCOON	79
THE POWER	62
WAR LORDS	65

### CREATIVITY/GRAPHICS

3D PROFESSIONAL	349
COMIC SETTER	89
DIGI PAINT 3	115
DRAW 4D	329
PRINTMASTER PLUS	55
TURBO SILVER	169

### UTILITIES/LANGUAGES

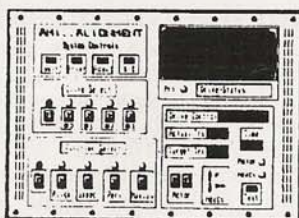
64 EMULATOR 2 A500/2000	99
64 EMULATOR 2 A1000	99
AMI KIT	58
AMI ALIGN SYSTEM	49
AREXX	65
AZTEC C DEV PAK V5	375
ASSEMORO	143
BBC EMULATOR	109
DOS 2 DOS	69
POWER WINDOWS 2.5	115
PROJECT D V2	75
VIRUS PROTECT TOOLBOX	69
SOUND/MUSIC	
BARS AND PIPES	239
DR T MIDI REC STUDIO	89
DR T COPY APPRENTICE	139
DYNAMIC DRUMS	105
SONIX	79

**ENTERTAINMENT: CALL FOR PRICES  
ALL TOP TITLES AT ROCK BOTTOM PRICES**

All in stock items shipped the same day. Please allow 14 working days for delivery of out of stock items. Should your product be faulty please return disk only & copy of receipt for immediate free replacement. COD also available. Prices are subject to change without notice.

NAME.....	PH (.....) .....	BK/CARD/MASTERCARD/VISA NO: .....	EXPIRY DATE .....
ADDRESS.....		Cheques payable to Briwall Australia	
CITY.....	STATE.....	POSTCODE.....	COUNTRY.....
DESCRIPTION.....	QUANTITY.....	EACH.....	TOTAL.....
.....			
.....			
For complete list of products & prices, please tick AMIGA ( ) C64/128 ( )			

### Ami . . . Alignment



Treat your drives with respect!  
A full-featured diagnostic & alignment system

**OUR PRICE \$49**

Adult Fun! Brand new adventures of  
Brad Stallion with superb graphics and  
sound!

### SEX OLYMPICS

**JUST \$49**



**COME AND SEE THE GREAT RANGE OF  
FREE SPIRIT AMIGA PRODUCTS**



at the  
"WORLD OF COMMODORE SHOW"  
DARLING HARBOUR SYDNEY  
JULY 12-14 1991  
Distributed & Marketed  
in Australia  
by Briwall Australia

### NOW AVAILABLE IN STOCK COMMODORE 1750 RAM EXPANDER

Turn your 128 into a power machine  
with 640k RAM.

Supports GEOS  
Pocket Writer  
Spectrum 128  
Newsmaker 128  
Write Stuff

**HURRY - LIMITED \$429**  
**NUMBER AVAILABLE \$369**

### 1541/1571 DRIVE ALIGNMENT

#### 1541/1571 Drive Alignment

This excellent alignment program is a must have for every Commodore owner. Easy to use, it helps you to align your drive so that it runs just as if it were new! The simple instructional manual and on screen help prompt you thru the alignment procedure and help you adjust the speed and head stop of your drives. It even includes instructions on how to load the alignment program when nothing else will load. Don't be caught short! We get more RED LABEL orders for this program than any other program we sell. Save yourself the expense! Order now, keep it in your library and use the 1541/1571 Drive Alignment program regularly! Works on the C64, C128 and SX64 for both the 1541 and 1571 drives.

**STILL ONLY \$44**

### SCREENFX

Create incredible presentations using 100,000 different combinations of effects. Create fantastic animated scripts using the most powerful C64 editor ever created.

**OUR PRICE \$43**

### ICON FACTORY

Convert, Enlarge, Alter, Enhance, Crop, Invert, Flip, Reduce and even Smooth graphics with this great graphics conversion utility.

**OUR PRICE \$50**

**MORE GREAT PRODUCTS FROM BRIWALL AUSTRALIA**

## Command Mode commands

The following commands are issued by first pressing the Escape key and then pressing the appropriate letter for the command you wish to use. If you happen to make a mistake and enter a letter which is undefined, then Ed will simply give you a message at the bottom of the screen to that effect and no harm is done.

Ed will also sometimes ask you to confirm that you want something to happen before he goes ahead and does it - like when you go to exit without saving your work or something along those lines.

## Cursor movement

ESC-M? - Moves the cursor to the number (?) line you specify.  
ESC-CL - Moves the cursor one character to the left.  
ESC-CR - Moves the cursor one character to the right.  
ESC-CS - Moves the cursor to the

Start of the line you are on.

ESC-CE - Moves the cursor to the End of the line you are on.

ESC-P - Moves the cursor to the Start of the previous line.

ESC-N - Moves the cursor to the Start of the next line.

ESC-T - Moves the cursor to the Start of your document or file.

ESC-B - Moves the cursor to the End of your document or file.

## Block commands

ESC-BS - Marks the cursor position as the Start of a block.

ESC-BE - Marks the cursor position as the End of a block.

ESC-SB - Shows a marked block of text on screen.

ESC-IB - Inserts a marked block of text at the cursor position.

ESC-DB - Deletes a marked block of text.

ESC-WB<Data> - Saves a marked block of text as a data file. Path names allowed. Ie: ESC-WB "Ram:Test"

## Inserting and deleting

ESC-DC - Deletes the character under the cursor.

ESC-D - Deletes the entire line you are on.

ESC-I<Text> - Inserts text before the current line you are on.

ESC-A<Text> - Inserts text after the current line you are on.

ESC-IF<Data> - Inserts a specified data file at the cursor position.

ESC-J - Combines, or joins the current line with the next line.

ESC-S - Splits a line at the cursor position.

## Search and replace functions

ESC-BF<Text> - Searches for text (or string) specified backwards up to the cursor position.

ESC-F<Text> - Searches for text specified in a forwards direction.

ESC-E<Text1><Text2> - Searches for specified Text1 and replaces it with specified Text2.

ESC-EQ<Text1><Text2> - Searches

for specified Text1 and replaces it with specified Text2 but prompts you to make sure you want to replace that occurrence.

EXC-LC - Makes for a more stringent search function, this tells Ed to find only that text that is identical with upper and lower case.

ESC-UC - The opposite of LC. Tells Ed to ignore upper and lower case when searching for the text specified.

## Miscellaneous commands

ESC-RP - Repeat the last command given until an error occurs.

ESC-U - Undo any changes made on the line you are on.

ESC-; - Allows command stacking. Separates commands on same command line.

## Tabs and margin settings

ESC-SL<n> - Set left margin to number setting where <n> = number.

ESC-SR<n> - Set right margin to number setting where <n> = number.

ESC-ST<n> - Set number of columns or spaces between Tab stops.

ESC-EX - Ignore the right margin setting on this line only.

ESC-SH - Shows current settings of Margins and Tabs etc.

## Saving your work and exiting

ESC-X - Exit Ed and save file to filename specified when Ed was invoked.

ESC-SA - Save File to filename specified when invoked and continue working on the file after you save.

ESC-SA<name> - Save file to filename specified in <name> and continue working on the file after the save. Useful to save under the same file to a different name when working with large files.

ESC-Q - Quit file and don't save any changes made to the file you are working on. Ed will ask you to confirm you wish to do this if changes had been made to the file during that session.

## Using the commands

As you can see, there are many keyboard combinations which you need to learn to begin to use Ed effectively. It is for this very reason that a lot of people don't bother with it and go for a more sociable text file editor that has pull down menu features and online help. Depends on one's taste I suppose. You might find you like it and enjoy the keyboard combinations and, if that's the case, stick with it and learn how to use it properly. I personally don't use it a hell of a lot as I prefer a shareware effort by the name of *Qed*, but only 'my' preference. With the right person at the helm, Ed is quite a powerful little beast that everyone has in the C directory of their Workbench.

The best way to learn to use Ed is like anything else to do with computers. A little bit of guidance and plenty of trial and error experimentation. Sit yourself down and physically try out the commands. Mark a block of text and paste (or insert) it in another spot. Delete lines, do search and replaces. Feel your way around and en-

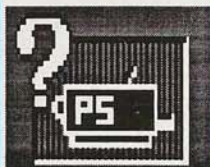
# Desktop Utilities

PO Box 3053, Manuka, ACT 2603

Phone: Canberra (06) 239 6658

BBS: 239 6659 Fax: 239 6619

## PostDriver



The Preferences driver for Postscript devices. Send your output from any program straight to the PostScript printer - you won't need HP emulation again! \$99.



Compact, memory-resident;  
ARexx port for custom scripts

What's better than a traditional database for your everyday use?

## Contact 1.2

Personal Contacts Manager/Database

### Why?

Because it fits in with what you're doing, and works with you as you do it, with the minimum of fuss

Now with even more features than before, e.g.

- Resizable window
- Selectable data files
- Autosave and autosort
- Audio tone dialling
- Includes CalcKey, popular memory-resident calculator

Available from any well-stocked dealer



## Professional Clipart 1 & 2

\$49 RRP

Structured clips  
For ProPage, ProDraw,  
& PageStream 2.1  
Australian themes  
included.



The Australian Maths practice program for grades K-6. Three skill levels. Graphics and sound feature popular Australian animals. \$39

## AMIGA BUREAU SERVICES

SOFTWARE DISTRIBUTION  
SCANNING SERVICE  
LASER PRINTING  
COLOUR INKJET PRINTING  
FILE CONVERSION

### SHARP SCANNERS & COLOUR INKJET

e.g. JX100 Use with Scanlab 100 on any 1MB Amiga

Bundled price with software \$1495

JX730 Colour Inkjet \$3995 with Amiga driver.

From INOVAtronics:

## CanDo Version 1.5 only \$169

Object-based programming; new version just arrived

CanDo Intro Pack, CanDo ProPower Pack \$51 ea.

Examples and help with CanDo programming

## Power Windows only \$119

Window prototyping package for programmers

Your dealer should have these now!

WE CAN BEAT ANY ADVERTISED PRICE! BUT WE SELDOM HAVE TO - OUR PRICES ARE THE LOWEST! (IF YOU SEE A LOWER PRICED ITEM, TELL US, IF YOU DON'T, TELL YOUR FRIENDS.)

**LOGICO**  
S O F T W A R E

Logico, Marrickville Metro S/C, Shop 3A/36 Victoria Rd, Marrickville NSW, 2204

TELEPHONE: (02) 519 5323

AMIGA		AMIGA		AMIGA		AMIGA		AMIGA		COMMODORE 64/128	
ARCADE		ADVENTURE		SPORTS		GRAPHICS & ART		MUSIC		ENTERTAINMENT	
Air Combat USA .....	64.95	B.A.T .....	64.95	4D Boxing .....	64.95	3D Professional .....	339.95	Amas .....	269.95	Atomic Robokid .....	36.95
Anarchy .....	54.95	Bard's Tale III .....	TBA	Amiga Cricket .....	44.95	3D Text Animator .....	71.95	Audio Engineer Plus .....	389.95	Back to the Future 2 .....	36.95
Arachnophobia .....	64.95	Buck Rogers .....	54.95	Bridge Simulator .....	64.95	Aegle Graph. St'r .....	84.95	Audio Master III .....	119.95	Battle Chess .....	36.95
Atomic Robo Kid .....	54.95	Cadaver 3D .....	54.95	Cellica GT-4 Rally .....	54.95	Animation Studio .....	239.95	Bare & Pipes .....	249.95	Blades of Steel .....	36.95
Awesome (w/T shirt) .....	74.95	Captive .....	54.95	Greg Norman Golf .....	54.95	Art Department .....	119.95	Bare & Pipes Prof. .....	499.95	Carriers at War .....	36.95
Awesome Hottest .....	74.95	Captive Mission .....	TBA	Indianapolis 500 .....	44.95	Art Department Pro .....	339.95	Dr T's Copyist DTP .....	399.95	Castlevania .....	36.95
Back to the future II .....	54.95	Chaos Strikes Back .....	64.95	Int'l Wrestling .....	44.95	Comic Setter .....	89.95	Dr T's Tiger Cub .....	109.95	Champions of Kyrnn .....	46.95
Badlands .....	64.95	Codenamed Iceman .....	64.95	Deluxe Paint III .....	74.95	Deluxe Photo Lab .....	94.95	Master Sound .....	109.95	Chessmaster 2100 .....	46.95
Bar Games .....	54.95	Colonels Bequest .....	64.95	Kick Off II .....	54.95	Deluxe Print II .....	94.95	Master Tracks Prof. .....	499.95	Days of Thunder .....	46.95
Battlestorm .....	74.95	Corporation .....	54.95	Kick Off II final whist .....	32.95	Deluxe Video III .....	94.95	Perfect Sound .....	169.95	Double Dragon II .....	36.95
Carvup .....	54.95	Corporation Mission .....	44.95	Om. Play Basketball .....	64.95	Design 3-D .....	99.95	Quartet .....	94.95	Dragon Ninja .....	36.95
Chase HQ 2 .....	64.95	Conquest of camelot .....	64.95	M.U.D.S .....	64.95	Digi-Mate 3 .....	54.95	Sound Express .....	119.95	E-Swat .....	36.95
Crime Wave .....	64.95	Curse Azure Bonds .....	44.95	Paris-Dakar Rally .....	54.95	Digi-Paint 3 .....	109.95			Elvira .....	36.95
Dragon's Lair II .....	84.95	Death Knights Kyrnn .....	TBA	PGA World Tour Golf .....	64.95	Digi-View Gold 4 .....	259.95			Ferrari Formula One .....	36.95
E-Swat .....	54.95	Dragon Wars .....	74.95	Pro Tennis 2 .....	64.95	Digi-Works 3D .....	179.95			F14 Tomcat .....	42.95
Ere & Forget 2 .....	54.95	Duck Tales .....	54.95	TV Sport Basketball .....	64.95	Director II .....	179.95			F15 Strike Eagle .....	42.95
Fire of Fury (4 in 1) .....	54.95	Elvira .....	74.95	World Cup Soccer .....	44.95					F16 Combat Pilot .....	46.95
Fimbo's Quest .....	54.95	Eye of Beholder .....	TBA							F18 Hornet .....	46.95
Flood .....	44.95	Hero's Quest .....	64.95							Fighter Bomber .....	36.95
Ghosts & Goblins .....	44.95	Immortal .....	44.95							Fimbo's Quest .....	34.95
Griffin's 2 .....	54.95	Knights of Legend .....	TBA							Ghouls and Ghosts .....	36.95
Hammerfist .....	54.95	Legend of Faerghail .....	54.95							Golden Axe .....	36.95
Hard Drivin II .....	54.95	Leisure Suit Larry I/II .....	54.95							Greg Norman Golf .....	46.95
Ilyad .....	54.95	Leisure Suit Larry III .....	64.95							Hammer Fist .....	36.95
Ishido .....	64.95	Loom .....	54.95							Heroes .....	36.95
James Pond .....	54.95	Manhunter II .....	64.95							Hillsfar .....	33.95
Judge Dredd .....	54.95	Mean Streets .....	64.95							Hot Rod .....	34.95
Jupiter Master Drive .....	54.95	Might & Magic II .....	54.95							Hunt 4 Red October .....	36.95
Killing Game Show .....	64.95	Mortville Manor .....	37.95							International Soccer .....	29.95
Last Ninja Remix .....	64.95	Night Breed 3D .....	54.95							Iron Lord .....	46.95
Lemmings .....	64.95	Obitus .....	74.95							Italy 1990 .....	36.95
Line Of Fire .....	54.95	Police Quest I/II .....	54.95							J. Nicklaus Golf .....	36.95
Lotus Esprit Turbo .....	64.95	Pools of Radiance .....	47.95							Kick Off II .....	36.95
Midnight Resistance .....	54.95	Search for the King .....	64.95							Kings Bounty .....	36.95
Mighty Bombjack .....	54.95	Secret monkey is'nd .....	64.95							Klax .....	36.95
Monty Python .....	54.95	Secret silver blade .....	79.95							Last Ninja II .....	34.95
N.A.R.C .....	64.95	Wizardry-bane forge .....	79.95							Leonardo .....	36.95
Narco Police .....	54.95									Might & Magic 2 .....	39.95
Night Hunter .....	54.95									Monopoly .....	36.95
Ninja Warriors .....	54.95									Monty Python .....	36.95
Nitro .....	54.95									Nirja Remix .....	36.95
Operation Combat .....	74.95									Parzer Battles .....	36.95
Pang .....	64.95									Pirates .....	46.95
Panza Kick Boxing .....	54.95									Pro Tennis .....	36.95
Precious Metal .....	54.95									Project Ste'ith Fight .....	46.95
Prince of Persia .....	54.95										
Professor Mariarti .....	44.95										
Rick Dangerous 2 .....	84.95										
Robocop II .....	64.95										
Shadow Beast II .....	74.95										
Shadow Warrior .....	54.95										
Shock Wave .....	44.95										
Silkworm IV .....	64.95										
Simulca .....	44.95										
Space Ace .....	84.95										
Spy who loved me .....	54.95										
Street Rod .....	44.95										
Strider II .....	54.95										
Super Monaco GP .....	64.95										
Super Off Road .....	54.95										

### AMIGA 500

#### 512K RAM

#### ONLY \$88.95

INC. ON/OFF SWITCH AND CLOCK

#### SIMULATORS

A10 Tank Killer .....	64.95
Blue Max .....	64.95
F15 Strike Eagle II .....	TBA
F16 Combat Pilot .....	44.95
F19 Stealth Fighter .....	64.95
F29 Retaliator II .....	TBA
Falcon .....	54.95
Falc'n Mission disk 2 .....	44.95
Flight of the Intruder .....	74.95
MIG-29 .....	64.95
Secret W.Luftwaffe .....	TBA
Their Finest Hour .....	64.95

#### BUSINESS

Day By Day .....	54.95
Desktop Budget .....	89.95
Easy Ledgers .....	364.95
Gold Disk Office .....	359.95
Home Accounts .....	83.95
System 3 .....	119.95
System 3E .....	149.95
Works Platinum .....	174.95

#### DATABASE

Data Retrieve .....	89.95
Data Retrieve Pro .....	182.95
DBman V .....	354.95
Superbase .....	74.95
Superbase 2 .....	119.95
Superbase Pro .....	274.95
Superbase Pro 4 .....	579.95

#### DESKTOP PUBLISH

Outline Fonts .....	259.95
Pagesetter II .....	164.95
Pagestream V2.1 .....	344.95
Pagestream fonts .....	49.95
Pro Page V2.0 .....	419.95
Professional Draw 2 .....	249.95
Publishers Choice .....	184.95

#### WORD PROCESS'S

Becker Text .....	124.95
Cygnusd Pro .....	124.95
Excellence 2 .....	254.95
Gold Disk Type .....	74.95
Kind Words II .....	89.95
Pen Pal .....	174.95
Protext .....	174.95
Prowrite V3.1 .....	169.95
Prowrite Fonts ea. .....	49.95
Word Perfect V4.1 .....	469.95

#### SPREADSHEETS

Advantage .....	259.95
DG Calc .....	89.95
Halcalc .....	79.95
Superplan .....	119.95

#### UTILITIES/LANGU/GS

Amx II software only .....	339.95
Ami Alignm't Kit .....	64.95
Amiga Vision .....	179.95
Amos .....	114.95
Amox .....	72.95
Aztec C Prof. .....	379.95
Benchmark Mod. 2 .....	269.95
Can Do .....	169.95
Can Do Pro-Pak .....	54.95
Cross Dos V4.0 .....	54.95
Devpack V2.0 .....	139.95
Directory Opus II .....	54.95
Disk Labeler .....	54.95
Disk Mechanic .....	109.95
Doctor Ami .....	54.95
Dunlap Utilities .....	94.95
GFA Basic .....	139.95
GFA Basic Compiler .....	79.95
GP Term .....	94.95
Hi-Soft Basic .....	169.95
Hi-Soft Extension .....	54.95
KCS Power Board .....	669.95
Pelican Press .....	139.95
Pixel Script .....	159.95
Quarterback V4.0 .....	82.95
Quarterback Tools .....	94.95
Sas/Lattice C V5.2 .....	444.95
Sas/Lattice C++ .....	469.95
Syncro Express III .....	129.95
X-Copy Prof. shrdw .....	129.95

#### PRODUCTIVITY

Action Replay VI .....	129.95
Award Ware .....	28.95
Blitz 64 .....	36.95
Cobol 64 .....	56.95
Create a Calendar .....	34.95
Data Manager .....	36.95
Electronic Cash .....	86.95
Expert Cartridge .....	139.95
Fast Load Cartridge .....	46.95
Final Cartridge III .....	119.95
Font Master II 64 .....	76.95
Home Video Prod. .....	62.95
Mini Office II .....	42.95
Monopoly .....	36.95
Monty Python .....	36.95
Musical Const. Set .....	29.95
News Maker 128 .....	56.95
Paperclip III .....	94.95
Paperclip Publisher .....	52.95
Pocket Series ea. .....	66.95
Power Cartridge .....	56.95
Printmaster Plus .....	56.95
Print Power .....	28.95
Print Shop .....	76.95
Superbase 64 .....	56.95
Superscript 64 .....	56.95
Swiftcalc .....	36.95
The Print Shop .....	72.95
Video Basic 64 .....	56.95
Word Writer 5 .....	66.95

#### GEOS

Geos 64 V2.0 .....	54.95
Geos 128 V2.0 .....	64.95
Geocalc 128 .....	45.95
Geochart 64/128 .....	35.95
Geodex 64 .....	35.95
Geofile 64 .....	35.95
Geofile 128 .....	45.95
Geoprogram'r 64/128 .....	35.95
Geopublish 64/128 .....	45.95
Geos Int'l Fonts .....	35.95

#### EDUCATION

Alien Addition .....	36.95
Animal Kingdom .....	37.95
Decimal Dungeon .....	38.95
Demolition Division .....	38.95
Family Fued .....	29.95
Fraction Action .....	37.95
Math Blaster .....	56.95
Math Blaster Typing .....	46.95
Minus Mission .....	36.95
Number Farm .....	36.95
Sim City .....	56.95
Speed Reader II .....	46.95
Spell It .....	66.95
Spelling Wiz .....	37.95
Wheel of Fortune .....	29.95
Where in Carmen. ea. .....	59.95

## JUST BECAUSE YOU DON'T SEE IT - DOESN'T MEAN WE DON'T HAVE IT !!

ter any little quirks you discover in your personal help file which we talked about at the start of this article. Once you have created it to your own satisfaction, go the next step and create an icon for it to make it readily available to refer to at any time.

## Using More - the Workbench text file viewer

*More* is a text file viewing utility which lives in the Utilities drawer on your 1.3 Workbench diskette. Usage is simplicity itself. Double click the icon and it will prompt you for a file name. Enter your filename along with the path to the file and it will display it for you. Simple as that.

However, if you have a text file which you might wish to view frequently - like your Using-Ed help file, then it becomes easier to attach an icon to this file and just double click it whenever you want *More* to display it. Here's how it's done, assuming your Using-Ed help file has been saved to the root directory of your Workbench diskette:

First off you need to pinch a project icon from somewhere. Any icon created by Notepad will do the job. So just enter a CLI and copy the filename.info file that was created by Notepad over to ram. Once you have it there, rename it to reflect your Using-Ed help file. ie: Using-Ed.info.

Once that's done, you just copy or move it into the root directory of your Workbench disk. Open up your Workbench disk and you will see the icon there. Now, double clicking it from this point will load up your help file into Notepad which is not what we want to do, so we now need to change the icon's default values to point to *More* rather than NotePad. I've covered this procedure once before, but will quickly run over it again here to save you digging through previous issues.

Click on the Using-Ed icon once and select the "Info" item from the Workbench. This will bring up a screen which details the icon's default values. The place we need to make our changes is in the DEFAULT TOOL window. Click once in the little window and press Right Amiga-X to get rid of the information it contains. Now type the following in the Default Tool Box:

DF0:Utilities/More

Save this by clicking on the save gadget at the bottom left hand side of the screen and you're ready to go.

From now on, each time you double click this icon, *More* will display your help file for you.

## Using More via CLI

You can also invoke *More* from the CLI as well as workbench simply by specifying the filename you wish to view. ie: In a CLI, type:

MORE DF0:Using-Ed

and *More* will fire up once again and display your text file. A handy and better way to view text files than TYPEing them in a CLI as it pauses automatically at every page.

## Letters

Ok, now onto a couple of your letters. The first this month comes from Lisa Ainsworth of Tenterfield in NSW who writes:

*Dear Andrew, I have been reading all your CLI tutorials and have found them very helpful. I read your section on making aliases and liked the idea so I tried to create some of my own. I have the Workbench 1.3 Shell, so the alias command should work. Yet when I open shell the first thing that appears is "Unknown command alias" then the prompt 1>. Why doesn't this command work and how can I fix it?*

*Also, the command's format and diskcopy don't work in my CLI. I receive the message "Unknown command Format/Diskcopy". The copy command works but not the Diskcopy. Why is this?*

*Keep up the good tutorials and thanks for your help. I have just begun to go back through the tutorials and discovered another side to computing I didn't think I'd enjoy. I have ordered a book on the CLI to continue with. Thanks again!*

**REPLY** - Hi Lisa, the reason why Alias and Diskcopy don't work is almost certain to be in your startup-sequence. It sounds to me that your startup-sequence may have been modified in some way which could mean that some vital lines have been left out. There are path settings which need to be made when booting up to be sure all examples given work and if they are left out then you're sure to run into problems. Try booting up with a copy of your original Workbench diskette you got when you bought the 1.3 upgrade and try again. If you still have no success, send a copy of the disk to me and I'll take a look at it for you.

Our next letter comes from Cre-

more where Keith A. Cartwright writes:

*Dear Andrew, Thank you for your very instructive tutorials in A.C.A.R. Could you include more of the "Ed and "EDIT" programs in future articles? I use Prowrite 3.0 and became sick of always going to ProWrite prefs to get the RAM disk. Through CLI, I accessed the S directory in the System disk and by using "ED df1:s/startup-sequence" I added Dir ram: and much to my surprise when I next loaded Prowrite, lo and behold up came the Ram icon making it easier to load the Main and User Dictionaries into the ram disk.*

I am sure there are many more uses for these commands and would appreciate it if you could investigate this and give some tips on its use. I have made an index for your articles and enclose a copy for your use. Also, could you possibly persuade ACAR to publish your valuable tutorials as a separate reference booklet.

**REPLY** - Well Keith, you should be happy with this issue's contents as I have virtually devoted it to using Ed as yours was not the first request for an article of this sort. Look forward to more of the same in coming months where I will be going into Ed with more examples as people write in with individual problems.

As for Edit, I have been debating whether to do a piece on it - if more requests come in I'll do an article in a future issue.

Thank you for the reference index that you sent on my articles. Very useful indeed. I would like to publish it in a future edition for the benefit of all to use so please get back to me saying whether or not this would be ok with you.

## Concluding

Well, that brings us to the end of yet another journey into the Amiga's other form of interface. Look forward to more of the same in future issues and please keep those letters coming in. The place to send them is:

PO Box 1335

Hoppers Crossing Vic 3030

Till then, experiment with what you've learned to date and keep trying new things. Life is too short, be daring! See you next time...

You can contact Andy Leniart on Andy's Attic BBS (03)-749-4897. □

## DON'T

trade in your old mouse or  
buy one with microswitches

Fix your own at home with the  
**MOUSEBOARD.**

If you're having trouble with your  
**Amiga Mouse** firing this is the  
board for you. A small PCB  
fitted with **microswitches**.  
You will now fire every time, all  
the time.

Easy to instal and economical

Only **\$12.95**

Cheque/Money Order to:

**NORTECH COMPUTING**  
PO Box 210 MOONTA SA 5558  
Phone & Fax 088 252 538  
Includes Post and Packaging  
Dealer enquiries welcome

## AMIGA

Night Shift.....	\$58
Trail by Fire.....	\$69
Narc.....	\$58
Bards Tale III.....	\$45
Dragon Strike.....	\$68
Chaos Strikes Back.....	\$55
DAS Boot.....	\$66
Blue Max.....	\$66
Corporation.....	\$65
Railroad Tycoon.....	\$86
PGA Tour Golf.....	\$45
Chuck Yeager 2.0.....	\$45
Wonderland.....	\$69
SWIV.....	\$66
Fun School 3.....	\$50
Kings Quest V.....	\$69
MIG 29 Fulcrum.....	Call
Amiga Cricket.....	\$55
Power Monger.....	\$45
Harpoon.....	\$64
Agiler Mouse.....	\$56
Slimline 3.5 Drive.....	\$150
Midi Interface.....	\$83
Action Replay.....	\$239
Mouse/Joystick	
Switch.....	\$47
Digview 4.0.....	\$294
512K RAM Exp.....	\$89

**FREE CATALOGUE**  
Phone today for our  
free catalogue -  
We have an  
extensive range of  
AMIGA, C64 and  
IBM Software



## COMMODORE 64

GEOS 2.0.....	\$85
Simcity.....	\$54
Pang.....	\$29
Total Recall.....	\$29
Narc.....	\$38
Fisher Price.....	\$38
Print Shop.....	\$72
Becker Basic.....	\$54
Data Manager.....	\$36
Mini Office II.....	\$40
Swift Calc.....	\$36
Word Writer 5.....	\$63



**Freight Free!**

db computing

18 Kensington Road Rose Park S.A. 5067  
phone : (08) 364 3952 fax : (08) 364 3936

## PRINTERS

Star LC 10 II.....	\$370
Star Nx1000 CL.....	\$399
Star LC-2410.....	\$584
Star LC-24 200.....	\$774
Citizen GS X140.....	\$795

Printer Cable Included  
with all printers

## DISKS

3.5 25/2D x 10	\$13.50
5.25 25/2D x 10	\$9.00
5.25 25/HD x 10	\$17.00
Disk Cleaner	\$9.00

## SPECIAL

20 MEG Hard Drive  
for Commodore  
Colt and PC 10 III

**\$449**

(including installation)

Phone through your  
mail Order today  
for prompt delivery



# PUBLIC DOMAIN SOFTWARE

## 1400 Amiga Disks

17 Bit to 852, Fred Fish to 480,  
Amicus, Amigoz, Amigan,  
Amaz, NZ Aug, FAUG, T Bag  
Collections and more on the way.

Send now for catalogue \$6.00 (3 disks)

All disks @ \$5.00 each plus \$2.00 for P&P per order

Bankcard, Mastercard and Visa facilities available

**ALLEN COMPUTER SUPPLIES**  
432 DORSET ROAD, CROYDON VIC 3136  
TEL 03 725 3379 FAX 03 723 1780

# The C64 Column

by Owen James

This issue marks the C64 Column's first birthday! A big thank you to everyone that's contributed with their tips, ideas and hellos over the past twelve months.

There's still a lot to come, such as adding more commands to BASIC, artificial intelligence, getting more from the C64, and a whole heap more. Check out this month's tip's section for news of a competition.

## RAMLink and RAMDrive

Creative Micro Designs, the company that makes those great C64 hard drives, have created what looks to be the answer to everybody's prayers. RAMLink and RAMDrive should be available by the time you read this.

RAMLink is advertised as a "Power-backed REU interface and expandable RAM disk" and RAMDrive, "a high performance battery backed RAM disk cartridge".

RAMLink fully supports the Commodore 1700, 1764, 1750, and even GeoRAM. It has a maximum capacity of 16 megs and a pass-thru connector for cartridges. It can be used with or without existing REUs (so you can finally use GeoRAM with other programs).

RAMDrive has a maximum of two megabytes and is GEOS compatible. It has its own separate power supply and battery back-up in case of failures or for transportation to another C64.

Both units come with RL-DOS, which can emulate a 1541/1571/1581 and even includes a JiffyDOS Kernal for JiffyDOS equipped drives. Sounds great! H.P.D. is taking care of distribution out here in Australia. For more information contact them on (08) 349 8486

## Your operating system

One of the great features of the Amiga is the ability to upgrade its operating system. The latest version, 2.0 (if it ever makes it past testing stages!), promises a whole new look for Workbench. With the 64, unfortunately, we're seemingly stuck with the boring blue BASIC interpreter. Wouldn't it be nice to make the default device the disk drive, or to get rid of the annoying question mark when using INPUT, or even to create your own personalised BASIC?

"He's day-dreaming again," you might be saying. "You can't change ROM". Of course you can't, but what's wrong with forcing the C64 to ignore ROM altogether and instead to use RAM?

To explain things a little better, type POKE 1, PEEK(1) AND 253. Notice that the 64 has become brain dead? Everything still works but the 64 is about as useful as Einstein without a brain. What we've done is told the 64 to forget about ROM. We've shut down the code that tells it how to operate. Don't panic - just hit RUN/STOP and RESTORE to put things right.

How can we make use of this ability to switch out ROM? Firstly we'll need to copy ROM into RAM. This is no big secret. It works on the same principle you may have used to define your own character set. Type this - it'll take a while to complete:

```
10 FOR J=40960 TO 49151
20 POKE J, PEEK(J) : NEXT J
30 FOR J=57344 TO 65535
40 POKE J, PEEK(J) : NEXT J
50 POKE 1, PEEK(1) AND 253
```

It may appear that this program is doing nothing more than poking values that were already in memory. Not

quite so. If you look closely you'll see that we're trying to poke into ROM.

When we POKE into ROM, our values are actually stored in 'hidden' or 'shadow' RAM. This RAM isn't accessed until we change the C64's memory maps. By utilising this shadow RAM we can actually get 88K out of our humble C64. More on this topic in a future column.

Lines 10 through to 40 copies BASIC ROM and KERNAL ROM into shadow RAM locations. Line 50 changes the C64's memory map so that ROM is switched out and the extra RAM (with the ROM code copied into it) is switched in. Now that the 64's intelligence is in RAM we can go about changing it. Just a word of warning before we begin: Take care with what gets POKEd where because you may find that the 64 may lock up. Don't be worried about experimenting, though, because at worst you'll have to switch off.

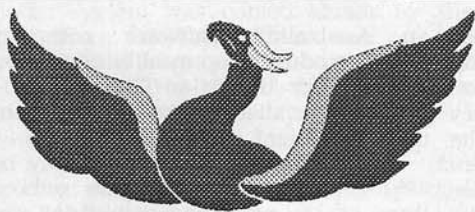
Since most of us are disk-based users we might like to have the drive as the default storage device. POKE 57818,8 and you can forget having to type a ',' on the end of file names. And getting rid of a nuisance question mark? It's as simple as typing POKE 43846,32. Now when you use INPUT as part of your BASIC programs you'll see a space instead of the question mark. Some other question mark replacements you might like to try are a colon (change the 32 to 58), a full-stop (39), or even a less-than sign (62). Any character could be used instead.

Colour changes for user responses are also possible. Just look up their ASCII codes in the back of the C64 manual. The GET command normally requires more than one step to make it productive. Usually we have to type GET A\$ : IF A\$="" THEN ... etc, etc. Not any more! Just type POKE 61765,252 and GET will halt until a key is pressed. If you ask me, that's the way it should've been to begin with!

Those of you with the will to experiment might like to try making their favourite ML utilities an integral part of the operating system. Add a DOS wedge, a SEARCH function for BASIC, or why not go all the way and put a complete machine code programming environment in place of BASIC? Tape users might even like to patch 'Turbo Tape' or some other type of compression system into the operating code.

You could even modify BASIC to make it more productive. For a de-

*Continued on p54*



# Phoenix

Microtechnologies Pty Ltd

**Manufacturers of the Phoenix Board**

Educational Reseller  
Authorised repair center

## Amiga 1000 support to the world

**Phoenix Board** - Replacement Motherboard for A1000

**\$945** - Includes 1Meg (Obese) Agnus, 2Meg RAM (1Meg Chip) on Motherboard, KickStart 1.3 in ROM (sockets for three more), KickStart Swap Switch, Drive Swap Switch, SCSI Controller and software, 68881/68882 CoProcessor Socket, B2000 Video Slot, B2000 Expansion Slot, 8Meg Internal fast RAM Daughterboard Connector. Easily installed - no soldering required

**\$699** - 1" high 52Meg Quantum SCSI Hard Drive with Cables and mounting bracket. Fits inside the original A1000 case.

Ask about our other A1000 Products

18 Hampton Road, Keswick, Sth Australia 5035 Ph (08) 293 8752 Fax (08) 293 8814

## Best Products... Best Prices

### GVP Series II A2000

***Prices Slashed!***

40Mb Quantum \$899

52Mb Quantum \$999

105Mb Quantum \$1199

210Mb Quantum \$1899

### Series II A500

42Mb Fujitsu \$999

52Mb Quantum \$1249

105 Mb Quantum \$1690

All have space for 8Mb @ \$200 / 2Mb

### NEW FLICKER FIXER

Commodore A2320 Image Enhancer  
Supports Workbench 2.0 for A2000

**\$449 (limited stocks)**

NEC 3D to suit \$999

GVP ACCELERATOR \$Call

NEW & USED AMIGAS

BOUGHT & SOLD

## Sigma com

(02) 545 3383

(018) 257 471

tailed guide on how to add new commands and modify existing ones, catch my article later in the year. It isn't as hard as you might think.

## Mail bag

In the mail this month is a letter from John Buckingham. He begins with a complaint about the C64 coverage in ACAR:

*"I have just written a letter to the editor complaining about the coverage of the C64 in the March copy of ACAR. Of 80 pages only about ten pages - including mixed advertising, entertainment and editorial content - was for the C64, even though it's the largest selling personal computer over the last decade worldwide. And it is still in production! There must certainly be more C64 users than Amiga users out there but in a magazine such as ACAR we only warrant 10 out of 80 pages."*

*"I'm sure that by giving us C64 owners and users more space more of us will be encouraged to contribute."*

I doubt very much that the editorial offices of any magazine are being swamped with C64 articles at the moment. Magazines such as ACAR can't just pull articles out of thin air for publishing. At the moment the Amiga is alive with activity. New hardware and software for it is being released on what seems like a daily basis. Naturally most magazines concentrate on where the action is.

Still, I'd love to see more C64 articles printed. So, put your word-processor where your complaints are and do something about it. Slap a few 1200 word articles together and send them to the editor. Chances are that they'll get published. How about some programming articles? If you've written a program then send it in. We at ACAR would love to balance up our C64 - Amiga coverage, but we need you, the public, to help.

John goes on to write about a Commodore games console: *"Since the middle of last year the English magazines have been telling us about the new Commodore Games Console but as yet we have not even had a mention of it in the ACAR. Surely such a machine must help in any resurgence of the C64. The major software companies are supporting the games console which is basically a keyboardless C64. The cartridges produced for it are entirely compatible with the C64. Yet there has been no mention of it in the ACAR."*

To be honest, this is the first I've

heard of the console. I normally use American magazines and user group newsletters for new product information and at the time of writing they haven't mentioned anything of the sort. Harry Copperman, the big Guru at Commodore, did mention something along the lines of enhancing the C64 this year. Is this the enhancement we've all been waiting for?

If the console is true then I say "About time"! A console version of the C64 is an obvious move to make the 64 more competitive with Sega and Nintendo, but I think that even now is a bit late for such a move. Sega has already gone several steps further by creating a new 16-bit CD-ROM console with full stereo sound, an extremely impressive offering of colours and dozens of top quality titles. Still, if a C64 console was expandable to allow the future addition of a keyboard and disk drive, it may prove more popular to the credit card-holding parents who might decide that expandability is an important factor in a games machine. I'll see what news I can dig up and keep you posted on the 'phantom console'.

Again dipping into the mailbag, Mrs. Elly Byrne of Wentworth Falls writes:

*"Do any of your readers know of anyone who has bought and used successfully the program Word Writer 5? I have managed to ruin the initial disk (I didn't make a backup copy first off)."*

*"If there are so many C64 readers, why is this magazine so heavily Amiga based? I would really like to know if there are still people out there using Vic 20s. I have managed to write a program to control the datasette on the Vic 20. Is anyone interested?"*

Vic 20s still seem to be in vogue, but not normally as a full dedicated computer. I often hear of people using them as a RAM disk for C64, or even having it wired to the 64 to multitask in long calculating operations. One of the more common uses is actually as spare parts for the the C64 because they are so similar. Anybody using the old Vics for anything else?

## Tips and tricks

Danny Collins sent in a number of suggestions that were published in the March issue. I'm happy to say that many of them proved popular with readers and in fact his idea of a competition has gained response from Dave Seiler, a programmer for Miller-soft Education Software. Miller-soft is

an Australian software company which produces top quality education software for the C64. The catalogue and sampler disk he sent me was genuinely excellent.

"Why the free plug?", you may be asking. Well, Miller-soft has offered three of its packages valued at approximately \$90.00 to be used as prizes for a competition such as the one that Danny suggested.

To enter, simply send in your original short and USEFUL programs for the 64. Some examples might be a short routine for the handling of user input within a program, or a utility to print stickers for cassettes or disks, or an automatic number selector for Lotto.

Here's the guidelines:

1. Programs must be short. About four or five disk blocks long is the limit. Exceptions will be made if the program is an especially good six block long program.

2. It must serve some useful purpose. Psychedelic colours flashing on screen to the tune of "Purple Haze" might be accepted if an explanation of "It's good for the soul" is included... but don't hold your breath!

3. Programs can be submitted on disk, tape, or printed listing, though disks are preferred.

4. Entries must be received by August 31st 1991.

Besides the three Miller-soft packages, I'll make available several compilation disks of all the best C64 PD titles including disk packers, demos, music programs, and heaps more. Get your programs in!

Dave Seiler also sent me a programming tip. This small routine has many useful applications, such as selecting specific screen positions, overprinting previous text and, as seen in the routine, it is great for creating print loops or erasing portions of your screen.

The POKES actually plot the cursor to the row and column you designate. The value 214 is the area poked for the row and 211 for the column:

```
5 POKE 53280,0 : POKE 53281,0 :
PRINT"[ctrl7][clr]"
10 UP=23 : WDS="GOING UP!"
20 UP=UP-1 : IF UP=4 THEN C=C+1 :
GOTO 50
30 POKE 214, UP : PRINT : POKE 211,
15 : PRINT WDS
40 GOTO 20
50 IF C>1 THEN 70
60 WDS="[9 spaces]" : UP=23 : GOTO
20
70 END
```

Dave also points out that there

was an error in the un-new routine that was published a few months back. The required modification is in the first line, which should have been:

POKE 2050,8:SYS42291  
then the routine as printed.

Sorry about the error! I should also say that the un-new routine is good for getting back BASIC programs after the C64 locks up. If this happens, reset the machine (a paperclip will do) and type the un-new routine. You should find your BASIC program is back in one piece.

Another unNEW routine recently came in. With this one, simply type:

POKE 2050,8:SYS 42291

Hmmm, sounds like the above correction could do the trick by itself.

Feeling mischievous? Here's just the trick to run on a friend's computer:

10 POKE 56334,0 : POKE 1,51

20 FOR I=0 TO 2048

30 J=I AND 7 : POKE 12295+J, PEEK (53248+I)

40 NEXT I

50 POKE 1,55 : POKE 56334,1 : POKE 53272,29

It'll take a while to run. After it's complete you'll find all the C64's characters print upside down. Not very useful, but I thought it was cute! As you can see, small routines are becoming part of Tips and tricks so send in some of your own to be included.

Tips, tricks, questions and suggestions can be sent to me care of: ACAR, PO Box 288, Gladesville NSW 2111 ☐

## AMIGANET

Ethernet network for Amigas

- Industry standard Ethernet Architecture.
- Networking software included.
- True peer-peer Amiga Networking - access any screen, hard or floppy drive, serial or parallel printer attached to any Amiga on the network.
- A500 version - ABS injection moulded case connects to expansion port of computer.
- A2000 version enhanced with 64Kbytes data buffer with 16bit datapath assisted by a DMA sequencer. (For high traffic centralised facility or a file server.

AmigaNet A500 \$700.00 (ex tax)

AmigaNet A2000 \$900.00 (ex tax)

## GPterm-64

(videotex and ascii communications for C64/128, rrp \$59.00).

## GPterm-Amiga V4

Australia's most popular Amiga telecommunications software

- Mouse or keyboard driven, fully multitasking from CLI or workbench. User defined 'configurations' for different services, 110 page manual and more.
- Full terminal emulations for videotex and ANSI/Amiga, IBM, VT100 ANSI terminal emulations for Viatel & Discovery 40/80, Pegasus and other text based services as well as BBSS.
- File transfer with XModem, YModem, full ZModem, SEALink, KERMIT, Punter and ASCII protocols. Batch transfers supported.

Packaged with an extensive manual, not copy protected **\$99.00**

Also available: Amiga and C64 Modem packages, & full range of NetComm and AVTEK modems.

Available from your local dealer or direct from

## GP Software

Specialists in Amiga Communications

21 Aloomba Rd ASHGROVE Qld 4060 Ph (07) 366 1402

## \$10 Service Offer

**Don't wait till it's too late!  
Protect your Commodore or  
Amiga computer, monitor, drive  
and printer now and don't pay  
any repair fees for a full year**

### GAINRUN

PTY LTD

ACN 010 992 800

7/27 Justin St

SMITHFIELD 2164

(02) 757 1055

### PARCOM

PTY LTD

ACN 010 631 660

Samuel St

CAMP HILL 4152

(07) 395 2211

Authorised Commodore Service Centres

- \* Send \$10 per unit
- \* Abuse and misuse excepted
- \* Next day service
- \* Spare parts extra
- \* BC/MC/Visa/Cheque

MODEL	SERIAL NO
.....	.....
.....	.....
.....	.....
.....	.....
CURRENTLY IN WORKING ORDER	
SIGNATURE.....	

## POPULAR MODULE EXCHANGE SERVICE

### PARCOM Pty Ltd

Whites Hill Shopping

Village

Samuel St

Camp Hill, Qld 4152

(07) 395 2211

### GAINRUN Pty Ltd

7/27 Justin St

Smithfield

NSW 2164

(02) 757 1055

Send your PCB, PSU, Drive or Mouse for next day replacement.

Reconditioned Modules available for most models e.g.

C64, 64C, 1541II PCB	\$99.00
A500 PCB	\$129.00
AMIGA DRIVE	\$200.00
MOUSE	\$50.00
A500 PSU	\$75.00

**ALL ITEMS MUST BE COMPLETE  
AND IN SERVICEABLE CONDITION**

**THREE MONTHS WARRANTY  
ON ALL MODULES  
PLEASE CALL FOR FURTHER  
DETAILS**

# USING Basic Sprite movement by joystick

by Nick Van Heeswyk

Let's take a quick look at how to control a sprite on the screen with the keyboard and the joystick. People that are familiar with controlling sprites would most likely know to move sprites with the keyboard. But using the joystick is quite different.

First of all we'll look at using the keyboard. Type in the following program and save it to tape or disk:

```
NEW
5 REM BY NICK VAN HEESWYK
10 POKE 53280,11:POKE
53281,0:PRINT CHR$(147)
15 V=53248:POKE V+21,1
20 POKE 2040,13:POKE V+39,1
25 FOR N=0 TO 62:POKE
832+N,255:NEXT
30 X=100:Y=100
40 POKE V+0,X:POKE V+1,Y
45 GET A$:IF A$="" THEN 45
50 IF A$="W" THEN Y=Y-1
55 IF A$="E" THEN Y=Y+1:X=X+1
60 IF A$="D" THEN X=X+1
65 IF A$="C" THEN X=X-1:Y=Y+1
70 IF A$="X" THEN Y=Y+1
75 IF A$="Z" THEN Y=Y-1:X=X-1
80 IF A$="A" THEN X=X-1
85 IF A$="Q" THEN X=X-1:Y=Y-1
90 IF A$="S" THEN END
95 REM BOUNDARY TEST
100 IF X=255 THEN X=10
105 IF X=9 THEN X=254
110 IF Y=250 THEN Y=10
115 IF Y=9 THEN Y=249
120 A$="":GOTO 40
```

After running this program, it should clear the screen and foreground and background should change colours. Then a white block sprite will appear on the screen. Now you can control the sprite with the following keys :-

	Q	W	E	
	*	*	*	
A	*	S	*	D
	*	*	*	
	Z	X	C	

Now for a line explanation.

Line 10 - Clear screen and change

screen colours.

15 - V = 53248, turn on sprite one.

20 - Store sprite at 2040. Give sprite white colour.

25 - Create solid block.

30 - Starting X and Y coordinates.

40 - Place sprite on screen.

45 - Wait for key press.

50 - 90 - Which key pressed and move sprite accordingly.

95 - 115 - Boundary test.

120 - Reset A\$ - return to line 40.

You can easily change the keys to what ever one you want by changing the letter. The key press lines work from W right back around to the letter Q in that order. At the end is 'S' for fire, but here it just ends the program.

Now for the section most of you are wanting to hear about. Controlling the joystick isn't much harder if you know what to enter into the computer. Now type in the following program and save it to tape or disk.

```
NEW
5 REM BY NICK VAN HEESWYK
10 POKE 53280,11:POKE
53281,0:PRINT CHR$(147)
15 V=53248:POKE V+21,1
20 POKE 2040,13:POKE V+39,1
25 FOR N=0 TO 62:POKE
832+N,255:NEXT
30 X=100:Y=100
40 POKE V+0,X:POKE V+1,Y
45 J=56320
50 IF (PEEK(J)AND16)=0 THEN END
55 M=15-(PEEK(J)AND15)
60 IF M=1 THEN Y=Y-1
65 IF M=2 THEN Y=Y+1
70 IF M=4 THEN X=X-1
75 IF M=5 THEN X=X+1:Y=Y-1
80 IF M=6 THEN X=X-1:Y=Y+1
85 IF M=8 THEN X=X+1
90 IF M=9 THEN X=X+1:Y=Y-1
```

```
95 IF M=10 THEN X=X+1:Y=Y+1
100 REM BOUNDARY TEST
105 IF X=9 THEN X=254
110 IF X=255 THEN X=10
115 IF Y=9 THEN Y=254
120 IF Y=255 THEN Y=10
125 POKE V+0,X:POKE V+1,Y
130 GOTO 50
```

After running the program, the same thing will happen as in the first. But instead of using keys to control the sprite, you can now control the sprite with the joystick in port 2. If you want to use port 1, simply change the 56320 to 56321 in line 45.

I think that's one of the good points about joystick controlling, you only need to change one number. Anyway it's time for a line to line explanation:

Line 5-40 - The same as in the first example.

45 - Load J with 56320 (port 2 location)

50 - This line simply figures if the fire button has been pressed down.

55 - 'M' equals the direction been pressed.

60-95 - Which direction pushed ? Move sprite accordingly.

100-120 - Boundary test.

125 - Place sprite on the screen.

130 - Return to line 50.

If you don't have the table of directions, naturally you would not know what's going on with the sprite movement. Unless you got smart and figured out which way the sprite was going to move. Anyway the table is as follows.

M	Direction
0	None
1	Up
2	Down
3 - 4	Left
5	Up and left
6	Down and left
7 - 8	Right
9	Up and Right
10	Down and right

IF (PEEK(56320)AND16)=0 /  
Fire button

As you can see, once you know how to control sprites with the joystick it really is quite simple. Just in case some of you don't know what's going on with X's and Y's in the programs, I will explain it for you.

Instead of wasting room here, take a piece of A4 paper and a pencil. Then draw a large rectangle on it, this will represent the whole screen. Then draw another rectangle inside of that one a few centimeters smaller. In the top left hand corner, label it

Continued on p58

Tear out this ad and tear into your Amiga dealer before June 30 to win one of ten education grants worth \$5000!

# You owe it to your kids



Have your kids told you the facts of life about computers? Fact is if they don't have one at home they may be suffering at school. That's why you owe it to your kids to buy an Amiga 500 before June 30. Because as well as setting them up with Australia's most versatile computer, you could set them up with an education grant worth \$5000!

Recommended by teachers right round Australia the Amiga, with its pin-sharp colour graphics and full stereo sound, can help the family with anything from drawing illustrations and composing music to preparing letters, lists and budgets.

  
**Commodore**  
**AMIGA**  
PERSONAL COMPUTER

Recommended retail price  
**\$899\***

\*Monitor not included.

It's also one of the best all-round entertainment systems on the market! For \$899 you get a Starter Pack crammed with features that make Amiga Australia's top-selling computer: Amiga 500 computer • mouse • joystick • KindWords word processing • FusionPaint drawing software • Indiana Jones action game • Kick-Off soccer • F/A-18 Interceptor flight simulator. Pick up an Amiga now and you could pick up an education for your kids worth \$5000! Tear out this ad and tear into your nearest Commodore retailer now. You owe it to your kids. And their education.

**Offer ends June 30.**

For more information, contact your nearest Commodore Specialist on 008 023 233.

Tear out this ad and tear into your Amiga dealer before June 30 to win one of ten education grants worth \$5000!

Tear out this ad and tear into your Amiga dealer before June 30 to win one of ten education grants worth \$5000!

NSW Permit No. TC91/1556 issued under the Lotteries & Art Unions Act 1901. Victorian Raffles & Bingo Board Permit No. 91/955 issued 03/03/91. ACT Permit No. TP91/0600 issued under the Lotteries Ordinance 1964. Northern Territory Permit No. NT/0505/91.

Made At Work CBS 0018

0,0 (outer rectangle). Then on the bottom left hand corner label it 0,255. Then move to the top right hand corner and label that one 511,0 and the bottom right hand corner 511,255.

Now we need to label the inner rectangle. Top left hand corner equals 24,30 and bottom left hand corner equals 24,250. On the other side the top corner equals 343,30 and the bottom equals 343,250. That makes the inner rectangle the viewing area for the sprite, and the border is the other where the sprite cannot be seen.

Let's say the sprite was at location 100, 150 in our program X would equal 100 and Y=150. If the joystick was pushed up, this means the sprite needs to be moved up too. Seeing 0,0 is at the top right hand corner, Y needs to become one less to move up, hence the  $Y=Y-1$ . So you should know that Y controls up and down and X controls left and right. Say if diagonally right down was pushed, one more would need to be added onto Y because in that direction the sprite needs to be moved down. But also it needs to be moved one across so X gets one more added in too. So that's how you get  $X=X+1:Y=Y+1$ .

You should be able to easily figure out what's going on even if you could not make heads or tails of it. All you really need is to look at it logically. You may not have really needed to draw up the screen viewing area, but you would need a copy if you're into moving sprites.

With keyboard control, instead of having to push the keys rapidly after each other, simply add the following POKE to make them auto repeat.

2 POKE 650,128.

(By the way, the above program can be made to run much faster, and require far fewer program lines, by using BOOLEAN statements. For a FREE copy of Suite 64 of your choice, send your solution in to:

ACAR

P.O. Box 288

Gladesville NSW 2111

First correct entry will receive the disk you nominate with your entry.)

Well that's all for now, bye till next time. □

# The Geos Column

by Owen James

In the GeoNews this month is some products to work with GEOS.

*GeoBasic*, from GeoWorks, was released a while back. This is the official *GeoBasic* and is allegedly better than *Becker Basic*. *GeoBasic* provides programmers with over one hundred new commands including WHILE... LOOP, REPEAT... UNTIL, CALL for ML routines, and permits line labels and longer variable names.

On the surface this all sounds great, but there seems to be one major catch - *GeoBasic* can only be purchased through RUN magazine of the U.S. Why has GeoWorks decided on such limited distribution? Anyone's guess.

My question is "What about users out here in Australia"? It's nothing less than an unnecessary hassle trying to exchange currencies, and have a long wait while it ships out here. And then what about after sales support? Hopefully some kind of more direct link can be made in the future to allow this product to get the type of distribution it deserves.

*GeoWizard* looks to be the GEOS utility that everybody's been waiting for. Isn't it a pain to have to go through the process of shutting down *GeoWrite* every time you want to create a graphic for your document? This is where *GeoWizard* comes in. You can actually boot an application from within another instead of having to go through the deskTop. Unfortunately, to my knowledge, it's another 'U.S. only' product. Comm-Plex Software can be contacted at: 6782 Junction Rd, Pacilion, NY 14525-9755.

## Laser output

You may remember me mentioning laser printing with GEOS a while back. The problem with this was that only Apple LaserWriter was usable.

The good news is that the GeoLaser/PubLaser Patch will convert GEOS LaserWriter files into raw PostScript

files. There certainly isn't a shortage of PostScript printers! I'm told that with this utility you can also print to a Linotronic printer for a 1200 dpi (dots per inch) printout. Incredible! The GeoLaser/PubLaser Patch was available on the American Q-Link last year. Any Australian BBS users got it?

## GEOS animation

*Album Animator* might be what you're after. Simply put, it flips photo album pages to create smooth animation. It's been available for about a year, so check your local PD supplier to see if it's around.

*MacAttack II*, I'm told, is great for transferring Macintosh pictures to *GeoPaint* format, or vice versa. Regular correspondent Marc Walters was in touch with me just before the deadline and tells me that he recently received some GEOS applications that are capable of converting *MacPaint* and GIF format pictures to *GeoPaint*. I'll see what information I can squeeze out of him for next issue!

So where do you get all this software? User Group disk libraries are the first place to try. Public Domain suppliers are also worth a go. There are many who deal with C64. Allan Crouch (telephone 649 4904) might be worth a go, as might Brunswick Publications. Look throughout The ACAR for advertisements.

Do you have an interesting GEOS Public Domain or Shareware program? How about a GEOS application or utility that you've written yourself? Send it to me care of the ACAR, PO Box 288, Gladesville, 2111.

## GEO-Errors

No system is foolproof. The Amiga's Guru meditates, the C64 freezes irreversibly without warning, and GEOS, well... GEOS gives a whole new set of things that can go wrong. Most GEOS errors aren't fatal, and normally come as a result of a user

trying to do the impossible. This issue I thought we'd look at some of these errors and how to avoid them.

The first and most important thing to remember is **MAKE BACKUPS**. I can't emphasize this enough. Get into the habit of creating two copies of everything. The GEOS boot disk is, annoyingly but necessarily, protected. This doesn't mean you can't take insurance against disk problems. Back it up anyway. Use a copier that will get you as close to a perfect duplicate as possible. You may not be able to boot from it but say, for instance, that something goes wrong with one or two of the important files, you have a copy of them that could easily be moved back to the boot disk.

Most GEOS error messages are self-explanatory, such as 'NOT ENOUGH SPACE ON DISK', so I won't go into great depths to explain these. There are some, though, that require further explanation:

**Bad or missing disk:** usually means that you've removed a disk from the drive and GEOS is trying to access it. Another common culprit is the drive door still in the open position. Also check that the disk is formatted and is able to spin within its cover.

**Device not found:** Check that the drive is turned on, is interfaced with the C64 correctly, and is not in an error state itself. The most common cause is that the drive has been switched off. If there doesn't appear to be anything wrong and you still get this error then check all interface cables. Test the unit with other cables if necessary.

**Disk ID mismatch:** The disk in the drive isn't the one GEOS expected to find. Always let GEOS know about disk changes. Unfortunately GEOS doesn't automatically sense the presence of new disks, so every time a change is made we need to let it know by clicking on the disk icon.

**Error reading disk:** From time to time you may come across an error such as this. Unfortunately GEOS disks aren't always easily fixed using the normal methods because of the file format employed by the system. The first thing to do is to retry the action you wanted to perform. I wouldn't recommend retrying any more than about three times as it may affect drive head alignment depending on the type of error.

If it still doesn't work, give the **VALIDATE** option from GEOS a go.

Remember to never use the ordinary DOS **validate** command as this will do more harm than good.

**Printer is inaccessible:** Check that it's turned on, interfaced correctly, and has enough paper and ribbon. Also check for some kind of internal printer error warning, like a flashing light.

**This is not a geos format disk:** This is more of an option than an error. When you place a disk that has previously been unused under the GEOS environment you are given the option to have it converted to a format that GEOS can more easily work with. If you elect to, GEOS will expand the disk's directory by one block. This block will hold information on the position of file icons on the notepad or on the border.

**This disk is not active:** Usually this pops up when trying to perform an action on a file in the border when the relevant disk is not available. For instance you may have moved some files from a word processing disk into the border, changed to your *GeoPaint* disk, and tried to dump a border file from the original word processing disk into the waste basket. The solution is to insert the relevant disk and try again.

Apart from these errors, which are easily remedied, there are the more damaging system crashes. You'll be told of these by a window popping up defining the error type and an address in hex of where it happened. The only thing you can do in these errors is to switch off.

There could be a way to recover un-saved text if you were clever enough to have a reset cartridge plugged in. Here's how to do it:

Press reset when you're told of the error. From BASIC, enter a machine code monitor and use the **INTERROGATE** command to look at memory around \$4300. You should find your text. If not then use the **HUNT** command and use a text string containing a word or two of your text.

When you find the boundaries of the text, save this to disk as a sequential file. Your command may look like this:

S"RECOVERED,S,W"08,4300,630  
0 To get the text back into *GeoWrite* format may require you to use the *Text Grabber* utility and import it as a generic file. This method may sound messy, but when you have pages of unsaved text the effort will be well worth it.

## GeoTips

If you find your GEOS work disks seem to be fuller than they should be, select **VALIDATE**. Often the disk clean up will result in a heck of a lot more room being made available. Try it!

Selecting **FULL JUSTIFICATION** from *GeoWrite* can sometimes lead to two or three words on a line with five centimetres of space in between each of them. To make the very noticeable spaces a little less dominant, try adding spaces manually. Add a space or two on the line above to force words to wrap onto the next line. This will even out the spaces a little better.

And don't forget about adding spaces in between the individual letters of words. Remember that GEOS uses proportional fonts, so a space in between an A and a V will be a lot less noticable than if you were using your printer's in-built font. Enough spaces in between letters will also force words to wrap around to give a much more balanced looking document.

That's this month's edition of The GEOS Column. Remember to send any GEOS tips you might have to me care of:

ACAR  
PO Box 288,  
Gladesville, 2111.  
See you next month. □

**KICKBOARD**  
HOLDS BOTH YOUR KICKSTART ROMS  
IN ONE EASY TO FIT QUALITY BOARD  
WHICH IS SWITCHED EXTERNALLY  
TO SUIT A500/2000 **KICKBOARD \$39-90**

**TRANSBOARD**  
USE YOUR EXTERNAL DRIVE TO BOOT  
OFF, SWAP INTERNAL V's EXTERNAL  
JUST SWITCH AND RE-BOOT [Ctrl+A+A].  
eight wires- requires good soldering ability.  
12 MONTH WARRANTY ON BOTH BOARDS **TRANSBOARD \$49-90**

Phone orders by Mastercard / Bankcard welcome  
Post & handling add \$3-60 anywhere in Australia  
order today- despatched today by Australia post  
Proudly manufactured in Australia by Unitech  
**UNITECH ELECTRONICS PTY. LTD.**  
AUSTRALIAN COMPANY NUMBER 003864042  
ESTABLISHED 1978  
INDEPENDENT REPAIRS TO COMMODORE PRODUCTS  
**PHONE: 02 820 3555 10am- 6pm**  
**P.O. Box 137, MINTO, N.S.W. 2566**

# "Software you CAN afford"

## Theme Disks

<b>Anti-Virus PAK</b> Protect and Eradicate	\$14.95
<b>ARP 1.3</b> Faster CLI, more disk space	\$5.95
<b>Atari Emulator</b> Runs some applications, plus utils.	\$5.50
<b>Business 1</b> Calc, Bankn, Badger, AmiGant, HP11 and Loan Calc	\$8.95
<b>Business 2</b> Mempad, IRA, DisSecretary Calendarm and StockBroker	\$8.95
<b>CAD</b>	\$8.95

<b>Super Workbench 1MB</b> SID, Dmouse more	\$8.95
<b>Star Trek</b> AGATron version. Very good.	\$8.95
<b>Super Workbench 512</b> Zippy, Dmouse more	\$8.95
<b>Text Editors</b>	\$8.95
<b>Wordprocessing</b> TextPLUS, AmigaFox, Calendar Label Print, PrintStudio Lila, GwPrint and Outliner.	\$8.95

## Graphics and Animation

<b>Ace #06</b>	\$5.50
<b>Ace #09</b>	\$5.50
<b>Ace #14</b>	\$5.50
<b>Ace #17</b>	\$5.50
<b>Ace #18</b>	\$5.50
<b>Ace #19</b>	\$5.50
<b>Ace #20</b>	\$5.50
<b>Artscape</b>	\$8.95
<b>Badge Demo Set - 3 Disks</b>	\$12.50
<b>Busy Bee</b>	\$5.50
<b>Batdance</b>	\$5.50
<b>Cameron Scanner</b>	\$5.50
<b>Crionics</b>	\$5.50
<b>CSIRO Sat-Piccies</b>	\$5.50

## HUGE 470+ FISH DISK LIBRARY

See complete list of 200 - 400 in 1991 Amiga Annual

**FISH \$5.50** 10 or more  
\$5.00 each

<b>Compilation of the best CAD in PD</b>	
<b>Communications</b> JRCOMM, ARC, ZOO and useful tips.	\$8.95
<b>Communications 2</b> VAXterm, Hyperdialer etc	\$8.95
<b>C64 Emulator</b> Full-blown, more options.	\$5.50
<b>DOS Utilities 2.0</b> All the best utils yet!	\$14.95
<b>DTV Still Store</b> Still frame playback.	\$5.95
<b>DTV/Graphics</b> Abridge, Title Generator, sMOVIE, ImageLab and more.	\$8.95
<b>Education 1</b> Elements, SpaceLog, DrawMap etc.	\$5.50
<b>Education 2</b> Gravity-well, Planets, Life-cycles, Orbit..	\$5.50
<b>Hacker 1</b> PowerPacker, Sound Scanner plus many more.	\$5.95
<b>Mr Sandman</b> Digitised sound demo (2 disks).	\$8.95
<b>MS-DOS theme disk.</b> Icon driven MS-DOS reader	\$5.50
<b>Sound Tracker Modules</b> Four disks available.	\$5.50ea.

## Our Service

### Order Processing

Most orders are processed within 24 hours of receipt. You will not be charged if you're paying by credit card until the goods have been dispatched. Orders are sent by surface mail - however, we do have a range of courier services available if you need speedier delivery.

### Support

If you have a more obscure problem, write down the error or problem and call for advice. It is best if you can also have the disk or program ready at your computer as this can help us help you quicker. Please use our Support number on (02) 879 7455.

### What if it doesn't work?

If for some reason, the disk you buy is damaged - just return it for a free replacement. Please include a short note explaining the problem which occurred and your correct return address, and day time phone number.

<b>Cycle Ball Demo</b>	\$5.50
<b>Digi-Slide Show 1</b>	\$5.50
<b>Digi-Slide Show 2</b>	\$5.50
<b>Dragon's Lair Demo</b>	\$5.50
<b>Epic Demo</b>	\$5.50
<b>Gymnast</b>	\$5.50
<b>Kanakas</b>	\$5.50
<b>Luxo Teenager</b>	\$5.50
<b>Music Mania #10</b>	\$5.50
<b>Music Mania #12</b>	\$5.50
<b>Music Mania #13</b>	\$5.50
<b>Newtek Demo 1</b>	\$8.95
<b>Newtek Demo 2</b>	\$8.95
<b>Northstar Demos</b>	\$8.95
<b>PC87 Slide Show</b>	\$5.50
<b>RGB Hazzards</b>	\$5.50
<b>Soundtracker 5-Set</b>	\$22.00
<b>Space Ace Demo</b>	\$5.50
<b>Stamp Collector</b>	\$5.50
<b>Vaux Killer (1MB)</b>	\$8.95
<b>Walker 1 (1MB)</b>	\$5.50
<b>Walker 1 (2MB)</b>	\$8.95
<b>Walker 2 (2MB)</b>	\$8.95
<b>Walking Cat</b>	\$5.50
<b>Zues Demo</b>	\$5.50

**FISH up to 470**

## How To Order



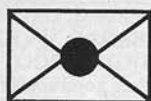
**NATIONAL**

(008) 252 879 FREE CALL

Orders Only.

(02) 879 7455 Sydney Metro

Prime Artifax  
P.O Box 288  
Gladesville 2111



## HOT RAY-TRACED • GALLERY 1 •

The best new HAM  
ray-traced images.  
View from Workbench.

**\$5.50**

## How to Pay

1. Credit Card - Visa, Mastercard or Bankcard.
2. Send a cheque or money order.
3. Cash on delivery. Collect from your post office and pay them (extra \$4.50 Australia Post charge.)

### ORDER FORM

Name .....

Address .....

Day Phone .....

Card No. ....

Exp Date ..... Visa ☐ B/C ☐ M/C ☐

Signature .....

### PRODUCTS

**HUGE**  
FISH DISK LIBRARY

# Prime Artifax Public Domain

## Amiga-Live Issue Six

\$24.95 (3 disk set)

### FEATURE Game

**Drip:** A full blown arcade game that's very out of the ordinary. It's up to you, as the 'Drip', to rust your way up 15 floors and get the juices flowing again. Avoid running or dripping into the acid, plasma and icecubes shooting out of pipes. You can get a little help from party balloons and bubbles that float by. Drip requires 512k of memory.

### Entertainment

**BoingDemo:** Despite the name, this is not a demo as such - it's one of those try before you buy versions of a commercial game, only this one is very playable. The Boing part is a salute to the original Amiga Boing Demo! In this level and ladders game, you travel about on poles, ladders, teleport points and at all costs avoid the Boncing Amiga Ball!

**RollOn:** The play is a little like Boulderdash or Emerald Mine. Eight levels are included. To win you need to plan ahead and organise your moves carefully - sort of a joystick strategy. Includes a level editor to design your own games.

**SlotCars:** A complete working game of SlotCars...just one of four games in the commercial package known as: 4 IN ONE - EASY BUT FUN! The game concepts are simple but addictive. A combination of strategy and dexterity is needed to beat this one.

**MoonBase:** Adventure/Arcade - guide the shuttle ship to and from the mother ship with the valuable cargo. A multi-level lunar lander.

### Strategy

**Turn:** A strategy game - the aim of which is to produce a given pattern of stones on the board. In order to complicate the game a little bit, all stones around the selected stone will turn either from black to white or from white to black. There are 18 levels available. There's also a pattern editor to design your own games.

**China Challenge:** Similar to the well known game Shanghai or Mahjong, the target of China Challenge is, to remove all parts of the pile, the so called Dragon, step by step. This dragon is composed out of 120 different pieces. A challenging past time, fun for two players too!

**MarbleSlide:** You've got to be quick to get this one. This is the fullest extent to which we've ever seen the old magic square theme taken - and one of the best. Slide the sliders to guide the marble home. But your time is VERY limited!

**AmiGo:** Strategy Board game for one, two or no players!

### Workbench

**SimGen:** How would you like Saturn on your Workbench? SimGen makes your screen look like it is Genlocked. A number of example images are included. Much better than DropCloth or any other of these Workbench background programs. Doesn't slow your Amiga down either!

**Flip:** This screen gag will drive you nuts. Try it out!

**Rocket:** Yet another in the great line of Workbench gags. This little number releases a guided rocket which heads straight for your mouse pointer. If you don't move in time, on impact the whole lot explodes. Stick it on a friends Workbench for fun!

### Business

**Liner:** Our serious program for the month. If you develop outlines for speech, writing, essays or reports, this program will help you organise and edit your material in point form - the best way to develop an outline. A fast solid program.

**WO:** A short and quick utility, which helps you to bring order in your addresses and codes them and saves them (password-encoded) on disk.

### Graphics

**MandAnim:** If you enjoy mandelbrot, you'll love MandAnim. Using a simple tweening process, you can select multiple key areas of a mandelbrot. MandAnim will generate as many steps as you specify between each frame creating an expanded animation file which you can load and animate in Deluxe Paint III. Some impressive graphics can be achieved.

**Hennon:** You can create some fabulous looking images using this program which lets you explore Hennon mapping. The program produces patterns like the one below using the formula  $x = x * \cos(a) - (y - x * x) * \sin(a)$  and  $y = x * \sin(a) + (y - x * x) * \cos(a)$ . Several example images are included. Full 640 x 400 hires is supported.

**plus FREE \$5.50 Graphics or Animation disk of your choice with Amiga Live 6.**

## Save on Back Issues!

Amiga Live #1 (2 disk set)	\$8.95
Amiga Live #2 (2 disk set)	\$11.95
Amiga Live #3 (3 disk set)	\$18.95
Amiga Live #4 (3 disk set)	\$18.95
Amiga Live #5 (3 disk set)	\$24.95

## NEW THEME DISKS!

### Emulators and File Transfer

**Transformer v1.22** \$7.95  
Get into MS-DOS on the cheap. Much faster than the original Transformer. 68030 compatible. Requires MS-DOS on a 720K diskette. No documentation.

**MS-DOS Theme Disk** \$5.50  
Install a full MS-DOS device using a simple install icon. You can then read/write 720K IBM disks and format them too! MSH: acts like any other Amiga device. You can share the selected drive between MS-DOS and AmigaDOS. Full documentation and other useful utilities included.

**Atari Emulator** \$5.50  
Despite the German menu titles, it is possible to put this Atari emulator which runs in low, medium or hires to some use. Will run some applications and can be used to view Atari graphics. Assorted other utilities are included on the disk.

**C64 Emulator** \$5.50  
A very full-blown C64 emulator. Lots of utilities, more menu control and transfer options than previous commercial programs. If you like what you see you'll need to purchase the serial interface direct from the U.S.A. - full details included with the disk. Full documentation on disk.

## NEW Educational

**Chemistry** \$5.50  
Chemesthetics allows you create a atomic model of different formulae and visual chemical structures - a great teaching tool.

## • SPECIAL OFFER • PD STARTER-KIT

**OVER \$50 VALUE  
FOR JUST \$34.95**

Super Workbench	\$8.95
Ready to boot with lots of utilities.	
Anti-Virus Pak	\$14.95
Protects against infection and eradicates over 45 known strains!	
Business 1	\$8.95
Star Trek	\$8.95
(AGAttron, full graphics version)	
Newtek Demo II	\$8.95
<b>ONLY \$34.95</b>	
(7 Disks Full • Free postage)	

### For the Musically Minded!

## Remix 1

Madonna and Blackbox sing out from your 1084S speakers in melodious mega-remixes.

\$5.50

## Tracks No. 5

To add to our large collection of Sountracker modules our latest addition including Bond, Fresh House and Wasteland will impress your eardrums.

\$5.50

## New Animation and Graphics

### Swartz Animation Set

A two disk set of some of the best cartoon-style animations on the Amiga ever seen.

\$8.95

### Amy vs Walker Animation

Another Swartz animation to impress you friends.

\$5.50

### Ray-Tracing Theme Disks

The best way to enter into the world of Ray-Tracing, DBK-Render allows you to create some amazing scenes.

\$5.50

POSTAGE IS FREE • NO HIDDEN COSTS • FULL SUPPORT

## COLOUR RIBBONS

*Can't afford a colour printer?*

You can still produce text and graphics in colour using ribbons from Australia's widest range of specialty printer ribbons.

Available in Red, Green and Blue for most printers - Brown Purple & Yellow also available for some types.

### SAMPLE PRICES

Commodore MPS 801	\$13.50
Commodore MPS 803	\$14.30
Citizen 120D	\$16.25
Epson LX400/MX80	\$16.90
Epson LX80	\$12.25
Epson LQ400/500	\$18.20
Okii 170/180/190	\$16.80
Panasonic 1080/1090	\$17.50
Panasonic 1124	\$24.50
RitemanC+/F+	\$20.80
Star NX1000	\$12.25
Star NX/XB2400	\$20.15

### Lazarus Ribbons

70 Wolseley Rd Tel: (02) 960 2737  
Mosman (08) 24 9991  
NSW 2088 Fax: (02) 968 1276

## C64 SOFTWARE

EXTENSIVE RANGE OF PUBLIC DOMAIN SOFTWARE FROM UK, USA, AUSTRALIA.  
EACH DISK CONTAINS MANY EXCITING PROGRAMS FOR ONLY \$5 PER DISK.

● SPECIAL ●  
INTRODUCTORY OFFER

**5 DISKS - \$20**

+ FREE CATALOGUE DISK

● GAMES ● GRAPHICS  
● UTILITIES  
● TUTORIALS  
IMMEDIATE DELIVERY

☐ PLEASE SEND 5 DISK OFFER  
\$20 CHQ/M.O. ENCLOSED

Please tick your preference(s):

☐ Games ☐ Computing  
☐ Art ☐ General

☐ PLEASE SEND FREE CATALOGUE

Name: \_\_\_\_\_

Address: \_\_\_\_\_

PostCode: \_\_\_\_\_

Post To: BRUNSWICK PUBLICATIONS  
PO BOX 458  
BONDI JUNCTION NSW 2022

## MEGADISC

... when you're thru playing games

Toll-free Number for ORDERS ONLY: 008 22 7418



Megadisc was designed to help you really learn how to use your Amiga. Tutorials, articles, reviews, hints and tips, useful software, and much more are included to help both the beginner and the veteran to use the Amiga more productively.

Not too serious and not too lightweight, Megadisc entertains you while you learn. Available as single issues, subscriptions of any three or six issues (past or future), or as a Trial Pack (including MegaDos, our Amiga Manual-on-Disk and Megadisc 20, and our Catalogue-on-Disk). If you get a Trial Pack, you can subscribe later for the lower rate mentioned below. Megadisc subscribers get lower prices on all our products, including the largest collection of quality public domain disks (almost-free software). Every Megadisc has the latest Virus-Killer update, and each Megadisc contains as much material as three of four conventional magazines, plus material available only on disk.

### MEGADISC 21 AVAILABLE

### The Entire Megadisc Series

- Order Megadisc 1 ~ 20, Megados and four free Public Domain Disks for \$199! That's 25 information packed disks! You can order your PD disks later.
- **AmigaDos Manual-on-Disk**, with all you need to know about CLI, Workbench 1.2, 1.3 and ARP described in layman's terms for \$19.95. Price for current subscribers \$13.95.
- **Trial Pack**  
Megadisc 20, Megados, and Catalogue-Disk for \$29  
Past and current subscribers ~ RE-Subscribe for less!  
\$45 instead of \$50 for a 3-Issue subscription (free PD incl.)  
\$80 instead of \$90 for a 6-Issue subscription (free PD incl.)

### Public Domain Disks

- For \$4.50 each ~ \$3.50 for Subscribers  
All our Disks are fully described on our FREE Catalogue-Disk  
Buy 10 PD disks, get one free ~ ie 11 PD disks for \$35 or \$45!  
Games 10-Disk-Pack & PD 10-Pack for \$45 each  
Our PD collection of 1500 disks contains databases, word-processors, spreadsheets, demos, graphics, and more! All disks are virus-free, and many are unavailable anywhere else.

Send to: MEGADISC, PO Box 759, Crows Nest

Telephone: (02) 959 3692 (all hours) Fax: (02) 959 3525

Contributions of any kind are most welcome ~ please call

We do not charge for Postage and Packaging, and there are no hidden extras in our prices  
We also take BankCard, MasterCard and Visa Orders by Phone or Fax.

I enclose a Cheque/Money Order for \_\_\_\_\_ or please charge my Creditcard:

MasterCard/BankCard/Visa No: \_\_\_\_\_ Exp: \_\_\_\_\_

Please send me: • Catalogue-on-Disk AT NO COST: ☐ • Trial Pack \$29 ☐ • ANY 6 issues of Megadisc for \$90 ☐ (please specify) \_\_\_\_\_ (\$80 for re-subscribers)

• ANY 3 issues of Megadisc for \$50 ☐ (please specify) \_\_\_\_\_ (\$45 for re-subscribers) • Megadisc 1 ~ 20 and MegaDos and 4 PD disks for \$199 ☐ • The 4 free PD disks I want (2 in the case of a 3-issue sub) are: \_\_\_\_\_

OR please send your Catalogue-on-Disk now and I will choose the remaining disks later: ☐

• 10-Disk Game Pack for \$45 ☐ • PD 10-Pack in box for \$45 ☐ • Beginner's Pack (3 Disk Set for \$29) ☐ • Megados AmigaDos Manual-on-Disk for \$19.95 ☐ • For current subscribers \$13.95 ☐ • Other Orders: Please attach

Signature \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Telephone \_\_\_\_\_ Date: \_\_\_\_\_

# COMMODORE USER GROUPS

## NSW

### ALBURY-WODONGA COMMODORE USER GROUP

P.O. Box 1014, Albury, NSW 2640

### AMIGA BURWOOD USER GROUP

P.O. Box 308, Burwood, NSW 2134

### ARMIDALE AMIGA USER GROUP

3/217 Beardy St, Armidale, NSW 2350

### AUSTRALIAN AMIGA USERS ASSOCIATION

P.O. Box 389, Penrith, NSW 2750

### CANBERRA AMIGA USER GROUP

P.O. Box 596, Canberra City ACT 2601

### CANBERRA USER GROUP ACT INC

P.O. Box 409, Curtin, ACT 2005

### COMPU-TECH COMPUTER CLUB

15 Hazelton Grove, Gateshead, NSW 2290

### COOMA AMIGA USER GROUP

P.O. Box 409, Cooma, NSW 2630

### EAST COAST AMIGA

P.O. Box 344, Gosford, NSW 2250

### EASTERN SUBURBS COMMODORE GROUP

P.O. Box 236, Botany, NSW 2019

### MACQUARIE FIELDS USER GROUP

32 Rosewood Dve, Macquarie Fields, NSW 2564

### NEWCASTLE COMMODORE GROUP

4/13 Smart St, Charlestown NSW 2290

### PENRITH COMMODORE USER GROUP

42 Alpine Circuit, St. Clair, NSW 2759

### RAAF RICHMOND COMPUTER CLUB

C/- CTS, SSSRIC, RAAF Base, Richmond, NSW 2753

### SINGLETON AMIGA USER GROUP

22 Falkiner Crescent, Singleton Heights NSW 2330

### SYDCOM

GPO Box 1542, Sydney, NSW 2001

### TUGGERAH LAKES COMMODORE GROUP

P.O. Box 2257, Gosford, NSW 2250

### WOLLONGONG AMIGA USER GROUP

42 Heaslip St, Coniston, NSW 2500

### COMMODORE HORNSBY USER GROUP

P.O. Box 1578, Hornsby, Northgate, 2077

## VIC

### COMMODORE USER GROUP (VIC)

1 Argyle Street, Gladstone, VIC 3140

### CRI COMMODORE USER GROUP

President - Rod Mason (03) 306 4063

### DINGLY COMMODORE USER GROUP

1 Hazelwood Close, Dingley, VIC 3172

### EASTERN SUBURBS EIGHTY GROUP

17 Douglas Ave, Box Hill South, 3128

### KNOXCOM INCORPORATED

P.O. Box 2000, Fernitree Gully, 3156

### MELBOURNE COMMODORE COMPUTER CLUB

P.O. Box 177, Box Hill, VIC 3128

### MOE COMMODORE USER GROUP 20

Edward Cres, Trafalgar, VIC 3824

### STAWELL COMMODORE USER GROUP

P.O. Box 299, Stawell, VIC 3380

### VRI COMMODORE USER GROUP P.O.

Box 253, Glenroy, VIC 3040

### YARRA VALLEY COMMODORE USER GROUP

P.O. Box 170, Lilydale, VIC 3140

### AMIGA USER GROUP (VIC) INC

P.O. Box 48, Boronia, VIC 3155

### BALACLAVA USER GROUP

3/2 Almond Ave, Brooklyn VIC 3025

### BORDER DISTRICT COMMODORE USER GROUP

P.O. Box 536, Wodonga, VIC 3090

## QLD

### BRISBANE AMIGA USER GROUP INC

Lot 4 Lindsay Rd, Morayfield, QLD 4500

### BUNDABERG COMMODORE GROUP

P.O. Box 1599, Bundaberg, QLD 4670

### COMMODORE USER GROUP INC

P.O. Box 274, Springwood, QLD 4127

### COMMODORE USER GROUP MACKAY

P.O. Box 422, Mackay, QLD 4740

### COMMODORE USER GROUP OF AUSTRALIA

P.O. Box 166, Pittsworth, QLD 4350

### GLADSTONE AMIGA USER GROUP

P.O. Box 1390, Gladstone, QLD 4600

### IPSWICH COMMODORE USER GROUP

P.O. Box 252, Ipswich, QLD 4305

### MOUNT ISA AMIGA USER GROUP

P.O. Box 1722, Mount Isa, QLD 4825

### NORTHERN AMIGA USER GROUP

P.O. Box 1722, Mount Isa QLD 4825

### AUSTRALIAN AMIGA USER GROUP

P.O. Box 1386, Toowoomba, QLD 4350

## SA

### BAROSSA USER GROUP

RSD Box 1 Daveyston, Greenock, 5300

## S.A.C.C.U.G.

P.O. Box 427, North Adelaide SA 5006

### SOUTHERN DISTRICTS COMMODORE GROUP

1 Birubi Way, Morphett Vale, 5162

### WHYALLA COMMODORE USER GROUP

P.O. Box 2367, Whyalla (Norrie), SA 5608

### AMIGA USER GROUP OF SA

P.O. Box 10131, Adelaide, SA 5001

## WA

### COMMODORE USER GROUP (WA)

234 Balcatta Road, Gwelup, WA 6021

### AMIGA USER GROUP OF WA INC

P.O. Box 595, Cloverdale, WA 6105

### COMMODORE COMPUTER CLUB WA

P.O. Box 146, Willetton, WA 6155

### HEDLAND COMMODORE USER GROUP

5a Baler Close, South Hedland, WA 6722

### PERTH COMMODORE & AMIGA GROUP

22 Marriot Way, Morley WA 6062

## TAS

### TASMANIAN AMIGA USER GROUP

6A Hamilton Street, Launceston, TAS 7250

### TASMANIAN COMMODORE ASSOCIATION

P O Box 673 Hobart TAS 7000

### VK COMMODORE USER GROUP

P.O. Box 168, Launceston, TAS 7200

### WEST COAST COMMODORE GROUP

8 Hurst Street, Queenstown, TAS 7467

### BURNIE COMMODORE AMIGA USER GROUP

P.O. Box 471 Burnie TAS 7320

## NT

### AMIGA USER GROUP OF NT

P.O. Box 3895, Winnellie, NT 0821

## New Zealand

### CHRISTCHURCH COMMODORE USER GROUP

P.O. Box 4665, Christchurch, NZ

### AMIGA USER GROUP OF N.Z.

P.O. Box 35107, Christchurch, NZ

### NZ MICRO COMPUTER CLUB

P.O. Box 6210, Auckland, NZ

### NEW ZEALAND AMIGA GROUP

P.O. Box 85094, Sunnynook, Auckland, NZ10

  
**Commodore**  
**AMIGA**

# Local programming TALENT

by Tim Strachan

**T**he focus of attention in Amiga software and hardware is often on overseas people, due partly to the fact that Fred Fish originally set up the Amiga PD Library very early, in the US. However there has been a lot of local talent in all areas and much of it comes through my hands as editor of Megadisc, and as a collector of PD/Shareware disks for the Megadisc library.

What follows is a rundown of some of the local talent, to give newer Amiga users some idea of the depth of Australian savoir-faire and to remind veterans of who's out there. If you have any other information, or are producing things yourself, let me know on (02) 959 3692 or care of this magazine, as I'd like to increase and systematise the collection of local talent.

**Nic Wilson** - well known for his NoVirus program, along with many other very useful commercial and freeware programs such as NoErrors, Addmenu, SysInfo, and many more.

**Warren Webber** - many public domain programs, including WBfrom-CLI, an innovative program.

**Jon Potter** - Jon has also created many freeware utilities, as well as such excellent commercial programs as Directory Opus. He is also involved in educational programming.

**Greg Perry** and **Paul McNamee** - these two have collaborated on numerous projects, the best-known of which is GPTerm, a communications program that has everything.

**Paul Hayter** - crafts small and interesting Assembly programs, usually public domain.

**Chris Hames** - author of numerous PD and Shareware programs, including the excellent DirWork directory utility.

**John Rowe** - also from the Too-woomba group, John has created numerous Workbench utilities for the public domain.

**Robert Lang** - writes in Assembler and concentrates on small powerful utilities, usually released to the public domain.

**Paul Coward** - wrote Macro68, an Assembler for the Amiga, very powerful and full-featured.

**Glen McDiarmid** - wrote the most popular disassembler for the Amiga, called Resource.

**Denis Green** - Denis does quite a lot of programming work for museums in Queensland, and has written some PD utilities.

**Mike Simpson** - has written numerous PD programs, and his most ambitious project to date is A-GENE, a full genealogical program for the Amiga.

**Keith Neighbour** - has produced a number of very interesting astronomy programs, including Constellation and Starnap, PD but better than most commercial stuff.

**"If you have any other information, or are producing things yourself, let me know"**

**Paul Pheloung** - produced StatPac, a pretty complete Shareware statistical program for the Amiga.

**Peter Kiem** - writes in C, notably an Icon Editor in the public domain.

**William Jordan** - has written many PD programs in Basic, very prolific.

**Mark Gladding** - Editor of NZAUG's disk-mag, Mark has written a very sophisticated interface/editor for diskmags.

**Chas Wyndham** - has written a similar sort of program to Mark's, called P-Suite.

**Mark Sibley** - is the author of the commercial program BlitzBasic, distributed by MAST. The Pro version is soon to be released.

**Craig Fisher** - has written numerous PD utilities, and the commercial-list manager/printer called Contact, recently updated to Version 1.2.

**Lex Eremin** - has written some interesting editing software for musical purposes.

**Sarv Engelhardt** - writes adventure/strategy games, including Citadel of Vras.

**Col Edwards** - has written numerous interesting games, particularly wordgames, in C, all public domain. Also The Insider's Club, a stockmarket simulation.

**B. Bester** - wrote a complex PD game called Truckin' On, in which you control a trucking empire.

**Frank Hernandez** - Writes in AMOS, particularly a Lotto simulator.

**Peter Davies** - of Enterpan Studios writes in CanDo amongst others, and has created some excellent presentations with original graphics and music.

**Ray Markham** - Ray has created numerous PD graphic programs, including a terrain generator.

**Mike Fuller** - A specialist in tiny, hand-tooled utilities, written is Assembler.

There are also numerous people putting together interesting graphics and sounds.

It should be noted that many of these programmers are not millionaires and are unlikely to refuse tokens of appreciation for all the time and effort they have put into their programming; and if you use someone's Shareware program you are obliged to send in the small fee they ask, because you're a good person, and you also want to encourage the continuing production of this software.

Not only that, but most are available for commissioned programming work - if you have a programming problem you need solved, you might be pleasantly surprised by the speed and quality of the work done by some of these local people. If you want to get in touch with any of them for any reason, contact me at Megadisc at the number above and I'll give contact numbers and addresses. □

# Phil Campbell's Entertainment

All the latest news and views from the world of entertainment

## ECP now officially Electronic Arts

First they were ECP. Then they were Electronic Arts / ECP. Now they're simply EA. Confused? It's easy. ECP were Australian distributors of Electronic Arts software. EA liked ECP so much that they bought the company. For a while it was known by both names, but now it's simply Electronic Arts Pty Ltd, or EA for short. "We're excited at the prospect of expanding our business in Australia and New Zealand", says Larry Probst, President of Electronic Arts. "We believe the Pacific Rim economy and consumption of consumer electronics will continue its dramatic growth." Hmmm ... I thought there was a recession on? Anyhow, Electronic Arts are consistently producing top class software, so they deserve our support!

## AD&D challenge from EA

*Eye Of The Beholder* is the latest RPG in the AD&D series from EA. With me so far? You will be if you're a fan of role playing games. *Eye Of The Beholder* is different - it's the first completely graphics based title in the series. To celebrate, Electronic Arts are running a *Beholder Bonus* contest - win a canvas gym bag with cool AD&D logos crammed full of exciting software products with a retail value of over \$250! How do you win? Simply get a copy of the game and watch out for the twelve special "Beholder Bonuses" through the game. When you've found them all, a special bonus screen will appear - send the password from the screen to EA, and the prizes are yours! For more information contact Electronic Arts on 075 911 388.

## Amiga Railroad Tycoon

If everything has gone according to plan, the Amiga version of *Railroad Tycoon* should be in the shops right now. This Microprose title is a real

gem if you're into railroads - even if you're not, it's almost as much fun as *Sim-City*. The PC version was hot - it scored the PC Game of the YEAR Award from the UK computer press.

## F-15 II zooms closer

The gap in the Microprose Amiga airforce is about to be closed with the release of F-15 II. The original F-15 was only available in IBM PC format - version two is being specifically rewritten for the Amiga. The program is entirely written in machine code rather than the higher level C language, reportedly giving the game a real turbo-boost. Watch for further details.

## Lexi-Cross from Electronic Arts

Here's a new word game with a difference - set in the 21st century. *Lexi-cross* is a TV game show featuring a board of 100 tiles. Spunky cyborg Robanna turns over the tiles one at a time, exposing hidden letters and prizes - it's up to you to decipher the hidden words and solve the puzzle by finding the theme that ties all the words together. You can also spin the money wheel, and buy hidden vowels. Already available for the PC, the Amiga version is due for release early next month.

## See CDTV at July World of Commodore

The CD-TV is due for release at the World Of Commodore show at Sydney's Darling Harbour from July 12 to 14. This beastie will make a huge impact on the world of home entertainment - so book those dates in your diary, and make sure you see it for yourself.

## Hints disk

Don't forget you can order an Amiga disk containing text files of all our entertainment hints and tips from the last two years. It's packed with good ideas, but you'll need a

standard Amiga wordprocessor to read them. To get your copy, send a blank disk, stamped, self addressed envelope and a cheque for \$5.00 (payable to Phil Campbell) to Phil Campbell, PO Box 23, Maclean NSW 2463.

## Last Ninja 3 for C-64

Hold on to your hats! *Last Ninja 3* has just been released to rave reviews from the UK press. This black-belt beat-em-up scored an amazing rating of 100% from YC magazine! So what do we think at ACAR? We're sitting on the edge of our seats waiting for a review copy from Ozisoft! Full details next issue, including release dates for the Amiga version too.

## New releases from Ozisoft

Watch out for titles like *The Killing Cloud*, a cops-n-robbers caper set in futuristic San Francisco. The city is enveloped in a cloud of poisonous smog - your mission is to get out on the streets and interrogate the Black Angel gang, who are somehow connected to the source of the mysterious killing cloud.

Then there's *Navy Seals*, an action packed arcade thriller, *Speedball 2*, a re-mix of the popular ball game with improved graphics and team handling, and *Dragon Wars*, a sophisticated, animated RPG for the Amiga, which sells for \$59.95. C-64 users should watch for *Line of Fire* at \$39.95, an action adventure featuring unlimited fire power, high speed powerboats and aircraft. Sounds good!

For more information, contact Ozisoft on 02-313-6444, or watch for our reviews soon.

## Cinemaware reprieve?

Roving correspondent Andy Phang reports that there may be a spark of life in Cinemaware yet! The company was supposedly sold to Colombia Pictures, but the deal fell through, leaving things in quite a mess. But President Bob Jacobs hasn't given up - he's still at the helm, and desperately looking for a buyer. Any takers?

Meanwhile, a new title, *Enemy Within*, will be out in June. Reportedly the game at last uses lots of digitised speech and video footage - can't wait!

# Entertainment Letters

Address your entertainment letters to PHIL CAMPBELL, PO BOX 23 MACLEAN NSW 2463, or fax them on 066 452060. Keep your musings brief and to the point, and make sure they're about games and stuff.

## Mature advantage

Dear Phil, Please find enclosed my daughter's submission for the Hall of Fame. I actually watched her compile her score of 29,078 on Tetris. Do you know of any games where a certain - er - maturity gives the parent a decided advantage over the kids? Thanks for your highly entertaining section of the magazine.

John Cootes,  
Beecroft NSW

*Ed: I know the feeling, John. And the bad news is, games that give parents an advantage are as rare as hens' teeth. The only advice I can give comes from a recent episode of THE SIMPSONS, where Homer headed off to the local video arcade for some tuition. If you've got any dignity, though, the best solution is to read our Hints and Tips, then hide the magazine from your kids - then you can play in "cheat mode" and they'll be none the wiser! Thanks for your letter. Tiffany's high*

score has been entered in the Hall of Fame.

## C-64 Perspectives

Dear Phil, This is the first time I've written to you so I hope I don't bore you. I'd just like to make some comments and put my point of view on a few issues. (Don't we all?)

First, what a mega magazine! Although it doesn't have the same amount of info on the C-64 as in my first copy of ACAR back in March 1988, I guess the abilities and power of the Amiga can't be stopped. At least you are still trying with the C-64 and 128, like with the new section by Damian Caynes. What about the ICE-MAN? All that time and two stamps that went down the drain with him!

Now about the Amiga. Is it ever going to stop? First the 500, then 1000, 2000, 3000, 4000 and then a 5000. Why couldn't they use the research and money to try to boost the sales of the C-64 and 128? After all, how

## MINDSCAPE OBITUS WINNERS

This month saw a record number of entries in our **Mindscape** competition - most of them wrong! According to the official ACAR wordcount, Greg Munro's *Obitus* review had 649 words. Barrel-girl Madeleine Campbell selected these five winners from among the correct entries:-

**Robbie Baker**, of Boort (Vic), **Daniel Bonarius**, of Tamworth (NSW), **Taffy Jones** of Padbury (WA), regular letter writer **Embah Beaton**, of Downer (ACT) and **S. Weine**, of Farmborough Heights (NSW).

Congratulations, and thanks to **Mindscape** for the top class prizes!



## MINDSCAPE COMPETITION



Wonderland is a superb adventure style re-creation of Lewis Carroll's famous ALICE IN WONDERLAND. The Graphics are beautiful, the game system is smooth and easy to use, and all the puzzles you would expect are waiting to be solved - like how do you draw treacle out of a well? How do you help the gardeners paint all the roses? And what do you do with the playing card in the teapot?

This is the game adventurers everywhere have been waiting for, and now you can win your very own copy! Mindscape are giving away **five** copies of the Amiga version, **which retails at \$79.95.**

All you have to do is write the answer to these questions on the back of an envelope and mail it to:

**Phil Campbell, PO BOX 23, Maclean NSW 2463 before June 31st.**

First five correct entries drawn on that date will win.

So here are the questions...

1. What was Lewis Carroll's **REAL** name?
2. What was Carroll's main occupation?
3. Who was the original ALICE?
4. What month is the hare?

Easy, I know - so get to it, and get your answers in before it's too late!

many kids can afford an Amiga 500, let alone the 5000? It seems a waste to ruin such a popular computer as the C-64.

Finally, I have two requests. First, I need help with *Neuromancer*. Can anyone give me some advice. Second, my second greatest hobby (after my C-64) is collecting business cards. Could you print my address so people could send me their card?

A Batroc  
39 Dalton St  
Orange NSW 2800

**Ed:** You've raised a lot of issues, but behind them all is a definite bias towards your good ol' C-64. It's still a

great machine, and it's always going to be able to do exactly what it's doing now. The Amiga, however, can do heaps more. So what do you want Commodore to do? Live in the past? You ask how many kids can afford an Amiga 500. Well, let me tell you - when I bought my first C-64 it cost \$699! What with inflation over the past 8 years, an Amiga 500 at around \$799 would have to be great value. By the way, the Amiga 1000 actually came before the 500, and there's not yet any hint of an Amiga 4000 and 5000. When there is, they certainly won't be aimed at the "kid" end of the market!

## TV Sports for C-64

Dear Phil, Can anyone help me in finding a cassette version of *TV Sports Football* and *Jordan vs Bird* on C-64? Also, I would love a Rugby League game - would you know where I could get one please?

Michael Bradley  
Urunga NSW

**Ed:** There are soccer games aplenty, but I haven't seen anything for League fans. If anyone can answer Michael's questions, please let us know.

## ENTERTAINMENT & TIPS AMIGA

Send hints to PHIL CAMPBELL, PO BOX 23 MACLEAN NSW 2463. Next month's best tipper will receive a free copy of our Amiga Hints Disk, crammed with all the hints and tips published in ACAR over the last two years!

### Rick Dangerous

Mark Peterson's problem has generated a big response.

First, George Knight of Berkeley Vale NSW writes as follows: "Mark Peterson's problem with Rick Dangerous was one of mine for a long time. Immediately after Rick lands on the ledge below, he must crouch and move right until his body is about half over the ledge. Here timing is very important. An instant after an arrow passes overhead, you must hold the joystick hard up and right so that Rick bounces onto the first platform and immediately up and onto the second platform. When you finally get this to work, have Rick fire a bullet into the right hand wall to clear the spikes above the ladder which takes him into a lower chamber."

Thanks George. Another reader, R Hannam of Toowoomba Qld, says "After firing your gun to make the stone drop, get onto it and crouch. As soon as the stone drops again, crawl left and fall down, still crouched, and stay crouched."

Listen to the firing of the arrows

and jump twice without stopping at the exact moment of firing. Fire your gun and the spikes will disappear allowing you to use the ladder." Mmmm - now is that the same as what George said, or different? I guess Mark Peterson will find out!

### Pipemania

Not the same thing as Tasmania, but almost! STUART GEORGE of Springvale, Vic, says there is a secret bonus of 50,000 points if you completely fill the screen with pipes. Stuart also sent the following tips...

### Flood

We have already published the first twenty codes for Flood - Stuart sent the next twenty, so here they are:-

Level 21-HATE or MATE, 22-REED, 23-LIME, 24-QUID, 25-WING, 26-FLEE, 27-GIGA, 28-HEAD, 29-LOOP, 30-SNIG, 31-JOUX, 32-PINK, 33-GOGO, 34-LETS, 35-QUAD, 36-BRIL, 37-EGGS, 38-HENS, 39-NAIL, 40-SOAP, 41-FOAM.

### Turrican

Type in BLUES MOBIL on the high score table for 99 lives.

SWORD OF SODAN

Type in NANCY on the high score table.

### Stormlord

Type DRAGONBRIDGE on the credits screen.

### Cybernoid II

On the title screen type NECRON-MICON to ward off death, also press

N for next level and L to restart the level.

My apologies to the reader who sent the following tips and a high

score - I've lost your name! Please let us know so you don't miss your moment of fame and glory!

### Venus the Flytrap

Passwords:

Mantids - The Frozen Wastes.

Cicadas - The Dead City.

Psyllids - Wood World.

Satyrid - Death Valley

Lycaenid - The Creeping

Swamp.

Pyralid - Tech Swamp.

Noctuid - Translucent Plant.

Special Power-ups.

Type these words in the password mode. MARS, PLUTO, JUPITER, SATURN, MERCURY.

### Skidz

Hold down ALT key and press the fire button. While doing this press M to skip levels or C for infinite energy.

### Thunderbirds Mission 1

Passwords to level 2 is RECOVERY. The other two codes are ALOYSIUS & ANDERSON.

### Platoon

Type HAMBURGER on the title screen and press F1-F4 to be taken to various parts of the game.

### Eye of Horus

In credits section type SPAM. You will now have Infinite Lives and you don't need colour coded keys to be able use the doors.

# IMMORTALITY or how to live forever in games!

Howdy doody folks! Welcome to another action packed, thrill-a-minute, stupendous, dynamic, ultra-hoopy, MK II IMMORTALITY column. No thanks to you, dear readers.

Yes, you are all guilty of gross neglect of my column! For the past

world! Do you want the C64 to be downtrodden in this magazine or do you want more coverage each month?! If you want more coverage, it's up to you! Send those letters now!

The Amiga may be a superior machine, but the C64 is not dead yet. There are developments occurring

even as I write in the evolution of the Commodore 64. I recently obtained some amazing new demos from Europe, displaying such things as advanced graphic techniques allowing hundreds of colours, and there are spectacular games being released on cartridge with 512k of memory! Now on a lighter note - The Tips!

**Time Machine** - Now here's a game programmed by the guy who actually developed those amazing cartridges I was rambling about. Unfortunately, this poke is also only for cartridge...POKE 31615,173 - This gives you infinite professors.

**Ninja Massacre** - Hmm, it seems that somewhere along the line one of the codewords in the April ACAR for this game was corrupted. So, instead of "HLE(?)" type "HOLE". Ok?

**Lords of Chaos** - I've heard that this "sequel" to *Laser Squad* is quite good, although personally I have only seen a demo. I think *Laser Squad* is better, but then that's just me, isn't it? Ok, POKE 40540,X (Where X is 0-3) and make sure you use your cartridge (ie. Action Replay etc.). This poke changes the level of your Wizard...

**Red Heat** - Yay! Arnie Schwarzenburger is cool, and so is this game if I do say so myself (and I do). Here are some pokes for it: POKE 3108,165 - For unlimited Arnies. POKE 3358,165 - For infinite energy.

**Batman - The Movie** - Hmm, I think the Batmobile and Batplane parts of this game could have been better. Maybe they could give away a free Amiga with every game so you could play the marvellous Amiga Batmobile bit...Well, if you want lots of infinities (cheat!) then type these li'l numbers in: - POKE 4806,173 - Infinite energy. POKE 4866,173 - Infinite Bruce Way... Batmen POKE 5060,173 - Stop the clock

**Ninja Warriors** - This is one terrific game, if you like that sort of thing. Dodge-jump-stab-punch-throw shi-ruken games were all the rage a while ago. Hmm, I know a guy that thinks he's Jackie Chan. Weird, huh? POKE 2727,173 - Infinite time POKE 15905,0 - Infinite energy

Well, that's all for this month's mix of pokes, controversy, lunacy and, erm, lunacy... PLEASE send your tips, pokes, money, cars, letterbombs to me:

Damian Caynes,  
4 O'Connor Drive,  
Bray Park, NSW 2484

## Hall of Fame

Send your authentic high scores to  
Phil Campbell,  
PO Box 23 Maclean  
NSW 2463. Please mark  
clearly whether your scores are for  
C-64 or Amiga. And remember -  
NO CHEAT MODES ALLOWED!

### AMIGA

ARKANOID 976,548  
AMAZED 130,500  
BATTLE SQUADRON 99,999,999(c)  
BEYOND ICE PAL 67,626(c)  
BLOCKOUT 85,281  
BOMB JACK 200,680  
BUBBLE + 276,850(c)  
BUBBLE BOBBLE 1,200,460  
BUGGY BOY 103,350  
CHASE HQ 5,504,010  
CONT. CIRCUS 4,529,690  
CRAZY CARS 86,064,640  
CRAZY CARS CHALL 3 Billion  
CRYSTAL HAMMER 43,847  
CYBERBALL 475,000  
DENARIS 53,900  
DRAGON NINJA 246,400  
DOUBLE DRAGON 124,630  
EUMINATOR 246,570  
FLOOD 6,455  
GEE BEE AIR RALLY 307,466  
HYBRIS 1,826,075  
IK+ 114,400  
IMPOSSIBLE MISSION 66,380  
INDIANA JONES L.C. completed  
SS 1,420,450  
KARATE KID II 54,000  
LEATHERNECK 86,500  
LIVE AND LET DIE 96,520  
MAJOR MOTION 50,658  
MENACE 996,481  
MIDNIGHT RESISTANCE 228,755  
MINDWALKER 306,214  
MOUSETRAP 71,977  
NITRO 233,000(c)  
N. Z. STORY 546,695  
OPERATION WOLF 344,800  
OUTRUN 26,331,122(c)  
OFFSHORE WARRIOR 626,345  
PACMANIA 3,250,140(c)  
PINBALL MAGIC 332,390  
PINBALL WIZARD 171,150  
PIONEER PLAGUE 35,412  
PLUTOS 129,450  
POPULOUS 307,860  
POW 612,865  
RAINBOW ISLANDS 781,370  
RAMPAGE 111,600  
ROBOCOP 375,520  
ROTOX 183,050(c)  
SIDEWINDER 811,250(c)  
SILKWORM (Hali) 1,936,000  
SILKWORM (Jeep) 622,500  
SKWEEK 2,403,880  
SPACE ACE 22,140  
SPEEDBALL 17,650

Kamikaze Andy  
Chris Turnadge  
Amos Burbidge  
Chris Turnadge  
Stephen Lark  
David Thompson  
Chris Toyne  
V. van der Heyden  
David Thompson  
Angelo Augostis  
Amos Burbidge  
Kristian Wehner  
Michael Summers  
David Thompson  
David Marsh  
Peter Evans  
Rod Matthews  
James Knight  
Greg Munro  
Embah Beaton  
Kamikaze Andy  
Embah Beaton  
Scott Southurst  
Diane Unwin  
Phillip Nicoll  
A G Smyth  
Michael Summers  
Shane Crosland  
Merekee Beaton  
Owen Webster  
Kamikaze Andy  
Angelo Augostis  
P Schumacher  
David Rich  
Andrew Gormly  
Embah Beaton  
John Boyle  
Benjamin Moen  
Jacob Booth  
Amos Burbidge  
Tracey Chilcott  
Aaron Sanderson  
Keir Sooby  
David Rich  
Maverick  
David Thompson  
Jurrin Beaton  
Kamikaze Andy  
Michael Summers  
Faye Doherty  
Amos Burbidge  
Daniel Everton  
Daniel Everton  
Embah Beaton  
Neville Clarke  
Amos Burbidge

STARWARS 5,722,822  
STRIDER 113,950  
SUPER CARS 17 races  
SUPER HANG-ON 25,042,850  
SWORD OF SODAN 364,750  
TEEN.M.N.TURTLES 546,600(c)  
TEST DRIVE 131,076(c)  
TEST DRIVE 2 521,918  
TETRIS 29,078  
TETRIX Level 232  
THUNDERBLADE 336,520  
THUNDERCATS 522,300  
TOWER OF BABEL 25,934(c)  
TURBO OUTRUN 100,260,819  
TURRICAN 1,302,650(c)  
TV-SPORTS F.BALL 189-0  
TWINWORLD 24,640  
TYPHOON 54,255  
VIRUS 14,576  
WHIRLUGG 28,210  
XENON II 1,107,280(c)  
ZOOM 67,051

C. Mingo wave 33  
Kamikaze Andy  
Maverick  
David Worthy  
Kamikaze Andy  
James Leeken  
Jordan Naglet  
David Banks  
Tiffany Cootes  
Stephen Lark  
Rod Matthews  
Scott Southurst  
Stephen Lark  
Matthew Mantle  
Stephen Lark  
David McKinney  
Carol Love  
Owen Webster  
Amos Burbidge  
Nathan Allen  
Mark Porta  
Steve Jones

### COMMODORE 64

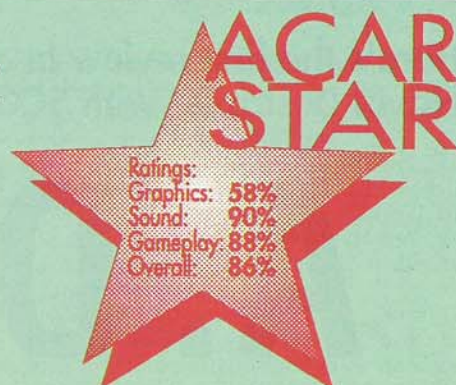
BATMAN 473,230  
BATMAN-THE MOVIE 1,087,080  
BANGKOK KNIGHTS 36,800  
BOMB JACK 521,820  
BUBBLE BOBBLE 4,409,030(c)  
BUGGY BOY 153,000  
CHASE HQ 9,220,121(c)  
DOUBLE DRAGON 30,660  
DOUBLE DRAGON II 255,190  
FAST BREAK 136 to 9  
GIANA SISTERS 105,200(c)  
GRYZOR 203,900  
H. MARADONA Level M  
HAWKEYE 207,650  
IKARI WARRIORS 267,800(c)  
INT. KARATE 139,300  
LAST NINJA II 25m08s (c)  
OPERATION WOLF 374,900  
OUTRUN 15,316,780  
PAPERBOY 103,100(c)  
POWERDRIFT 831,490  
QUE-DEX 639  
R-TYPE 1,280,500  
RAINBOW ISLANDS 2,233,820  
ROBOCOP 82,250  
ROLLING THUNDER 256,590  
SALAMANDER 235,300  
STREET FIGHTER 168,900  
SUPER CYCLE 214,640  
TEST DRIVE 36,144(c)  
TEST DRIVE II 249,543 (c)  
TETRIS 25,706 (326 lines)  
THUNDERBLADE 1,734,040  
THUNDERCATS 57,500  
TARGET RENEGADE 330,450  
TRAZ 54,560  
UNTOUCHABLES 70,230  
WONDER BOY 535,450

John Nunes  
Michael Bradley  
Nick Van Heeswyk  
Adam Wade  
John Nunes  
Adam Wade  
ICEMAN  
Joshua Smith  
Nick van Heeswyk  
Chris Byrne  
Russell O'Neill  
Paul Millward  
N. van Heeswyk  
Adam Wade  
Iceman  
Paul Millward  
Marc Bell  
Adam Wade  
Adam Wade  
John Nunes  
Adam Wade  
Chris Byrne  
Joshua Smith  
Adam Wade  
Tim Lockwood  
Adam Wade  
Paul Millward  
Adam Wade  
Adam Wade  
John Nunes  
A Batrac  
A Batrac  
Tray Morrison  
Chris Byrne  
C. Byrne (clocked)  
Dave & Sue Upton  
Simon Watford  
A Batrac

Scores followed by (c) indicate  
that the game has been completed.

Oh no! Just when you thought it was safe to go flying again, ANDY PHANG gets a job as an Air Traffic Controller...

# Tower FRA



What an intriguing software title from German publishers Thalion. Just what is a FRA? Maybe some of our German readers out there can enlighten me.

I may not know what FRA means, but *Tower FRA* is a new simulation on the Amiga dealing with the tasks of your everyday airport controller. This game is certainly a great departure (pun intended) from Thalion's last effort, the adventure game *Dragonflight*.

If you thought airport controllers had an easy life, think again. With planes landing and taking off every minute, it's your task to ensure that each plane receives correct instructions and avoids mid-air collisions. This can get especially hectic in the

higher levels of the game (of which there are ten). Planes will appear out of nowhere, demanding your constant attention and patience. Concepts like "stacking" airplanes over radio beacons, sending out transponder codes to planes waiting for take off, and even controlling the emergency forces of the airport should there be some problem with incoming planes are part of the job.

Luckily you can only start off at the lowest ("holiday") level of difficulty, and work your way up after successfully manning your post for a certain amount of time. You also have a choice of four airports to work from, ranging from a small country airport that only services light planes, to the Munich and the constantly busy Frankfurt airports.

*Tower FRA* lets you choose any four of the major tasks performed by airport controllers. The first is Departure control (guiding outgoing planes into correct sectors of the radar screen, as well as deciding on their speed and altitude). When you're in Arrival control, you must determine the direction a plane should take in approaching the airport, taking into consideration wind direction and the speed of the plane).

Radar control gives you control of the skies over the airport, and you must direct incoming aircraft towards the airport sector, while making sure that other planes not scheduled for landing will fly past at a safe altitude. Finally, Tower Control is the most difficult of the lot, as you actually control the take-offs and landings of the planes. Selecting the correct runways and taxiways to prevent a plane in descent from meeting a plane in ascent can be extremely

harrowing, especially if your airport only has one runway!

The graphics are nothing to shout about, since all you ever get to see is one rather huge mean green radar screen, with control panels to the left and right. Airplanes on the radar appear as triangles or rectangles, with their flight numbers, speed, and flight level (altitude) statistics below.

A mini computer to the right of the panel allows you access to information such as wind changes, runway situations, radio beacons, and emergency personnel. On the left, a control strip displays the status of incoming and outgoing flights, and lets you communicate with the pilots (either to tell them to raise or lower their speed, to inform them of the correct runway they should use, and so on). The graphics are not supposed to be flashy; after all this is a simulation of a typical control tower!

Sound is excellent, as the pilots actually speak to you when asking for instructions, and your replying commands are also spoken out via radio. I think the designers used the built-in Amiga synthesizer, but it sounds like it has been digitized (it's that clear and realistic!)

*Tower FRA* also boasts an excellent manual, which goes into great depth over each aspect of the game and of a typical airport controller's duties. It comes on two disks (the second being a data disk, and Thalion promises that more data disks will be come available and will feature different airports), and also requires 1 Megabyte of memory.

The sense of achievement after completing each gruelling level is part of the addictiveness. Here is another game which proves that beautiful graphics are not necessary if the gameplay is just right. *Tower FRA* may not be an arcade game, but it certainly is non-stop action all the way!



**Distributed by:**

Pacronics  
02 748 4700

**RRP:**

Amiga \$59.95



Here's the first review in our special Maritime double - climb aboard a Naval Destroyer with SCOTT CAMPBELL as he takes the helm in ...

# A.D.S.

## Advanced Destroyer Simulator

In the modern-day world, where the smart, sophisticated weaponry of the super-powers is only going to get more high-tech, it's something of a comfort to go back to a relaxing, absorbing and skilful combat simulation like A.D.S. This game re-creates many of the sea-battles of WWII - in the Mediterranean, North Atlantic and English Channel.

Yeah, okay, I know that at the time such things looked like futuristic nightmares, but then so did the sight of steam-trains at one time, and what do they represent now? Gentle, relaxed sunny afternoons, drinking a cup of tea as you puff along. And while I've never been a fan of ship-sims myself, feeling more at home behind the sights of an X-wing fighter, even I was touched by the sight of distant ships on the sparkling blue horizon.

Your ship may not pack the wallop of a Xenon Megablast, but you'll find that these old

ships, many of which are still going, pack an awful lot of shells and torpedoes - enough to keep even the most bloodthirsty pirate happy. However, realism is the name of this game, and the realistic limitations imposed on your weaponry and manoeuvrability make for a different sort of challenge, one which can provide real tension.

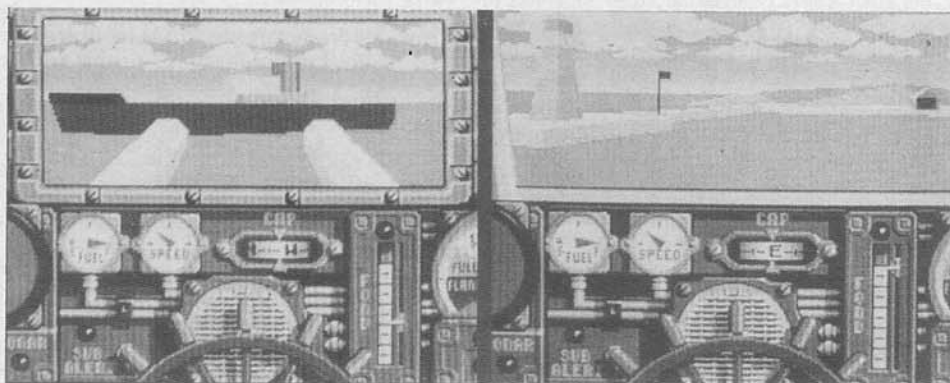
But don't worry if you think this means a whole new bunch of controls to learn, as per flight simulators. Here the controls are simple to operate and there are hardly any to learn. The only thing you need is a

bottom half of the screen, but width is what you need in this game, and it's what you get. There is a binocular mode for looking into the distance, though irritatingly it's loaded from disk every time.

You also get views from the three cannon turrets, which you can swivel about four ways, and the two torpedo tubes on the sides of the ship, so you can pump lead into the enemy ships until they finally start to burn, and you know you've got the swines.

I shouldn't boast, though, as I've only tackled some slow unarmed freighters. I'm not yet game enough to take on the tougher missions against destroyers faster and more dangerous than my own.

Extra complications include Stuka attacks and submarines. In the North Sea you have to find camou-



### Distributed by:

Mindscape  
02 899 2277

### RRP:

Amiga \$69.95

### Ratings:

Graphics: 71%  
Sound/Music: 70%  
Gameplay: 90%

Overall: 85%

FUTURA

feel for how a ship operates and moves. My reflexes still make me turn the rudder the wrong way every time!

The makers of the game have successfully balanced the need for detailed realism in the graphics against the demands for a good, realistic simulation. The graphics are a bit boxy, but they look good enough. This allows the game to run at sufficient speed, and for the ships to move about in 3D space believably.

The view you have of the action is nice and wide. The control panel, which gives you all the info you need, takes up a large proportion of the

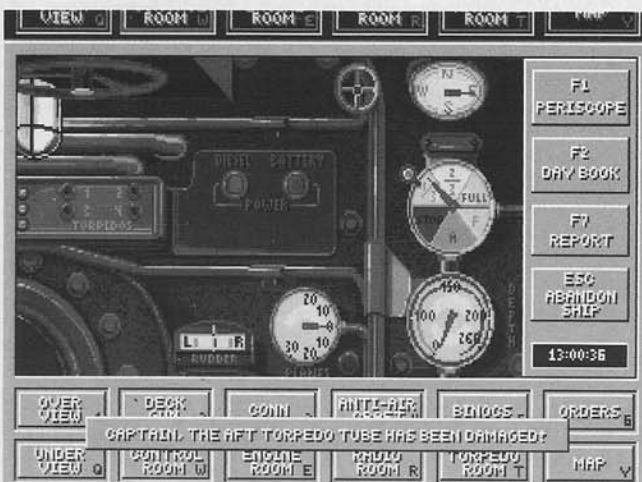
flaged ships, and in the English Channel there are troops to protect. There is a map mode which gives you a good indication of where you and the other ships are, and in this mode you can speed up your journey as long as you aren't near other ships or land. You have radar to track ships at a closer range.

If you're interested in sea-battle simulation, have a good look at A.D.S. It seems that such sea-battles are virtually a thing of the past, and they may only exist in the future in sims like this. And this one is definitely recommended - it's the best I've seen! □

In Part Two of our sea-faring special, PHIL CAMPBELL reports on the view from the other side of the Atlantic as he takes the helm of a German U-Boat ...

# DAS BOOT

Winter, 1941. The icy waters of the North Atlantic close in around you as you dive. Deeper, deeper, till the steel



depth charges pound against the hull of your U-Boat like iron fists. Enemy aircraft patrol overhead, and the murky waters around you are littered with mines. This mission is no picnic!

You raise the periscope for a quick look at the outside world - make it fast, because you don't want to be spotted by the American planes. Charting a course to safety, you shout your orders to the

main control room. Periscope down, you dive. Deeper, deeper, till the steel framework of your sub begins to groan in protest. Any further, and the pressure hull may be crushed.

We're playing *Das Boot*, a classy simulation of life on a German U-Boat in the heat of the Second World War. It's a dangerous life. Of the 40,000 German submariners who put to sea during the war, only 10,000 returned. And of the 820 U-Boats that participated in the Battle of the Atlantic, 781 were destroyed in action. In other words, the odds are stacked against you - so don't expect to win.

Submarine simulations are nothing new. *Silent Service* was released to rave reviews in 1985. The sequel, *Silent Service II*, has just been released by Questor (ph 02 6627944) with greatly enhanced graphics and sound effects. Just one problem. For a simple guy like me, there's a lot to learn - you'll need plenty of practice before you start to enjoy the thrill of the battle. *Das Boot*, on the other hand, is much more playable - you'll be firing your first torpedo in moments.

Don't worry. There's plenty of detail. But *Das Boot* has got action and drama as well. Dodging surface mines is almost like racing in a slightly ponderous slalom - in "accelerated time" mode, your 915 ton U-Boat weaves and

sidesteps with graceful ease. Well, almost.

Manning the deck-mounted guns is good fun too - but don't try it until you reach the surface. Enemy planes are buzzing everywhere, just waiting for you to shoot them down in flames. I managed to down at least one of them at my first attempt - a good effort, though in the meantime the air attack had destroyed my rudder, damaged my torpedo tubes and taken the engine room out of commission. A minor inconvenience - I'm playing easy mode, so there's a team of fast working mechanics on hand to start work on the repairs.

Action stations aside, *Das Boot* offers plenty of opportunities to immerse yourself in the details of controlling your very own submarine. Engine room and control room screens are detailed. The principles of operating a diesel-electric sub are well explained and realistically implemented. There's a definite trade-off involved - you can't operate on diesel power when submerged without dramatically depleting your air supply, so you'll usually operate on electric power unless you're on the surface. You'll need to watch your fuel and air levels, and especially the charge of your battery cells. When they drop too low you'll need to surface so your diesel engines can recharge the cells.

There's plenty more. Like the radio room, where you can send and receive encrypted messages. And the map room, where you will chart the course for your missions. There are a bunch of navigational and detection functions to master too. But all that can wait. The beauty of *Das Boot* is that it's a well balanced game - some easy thrills in the shallows, but plenty of depth for the experts.

*Das Boot* is packaged with a 563 page novel - a genuine multi-media experience. □

## Distributed by:

Electronic Arts  
075 911 388

## RRP:

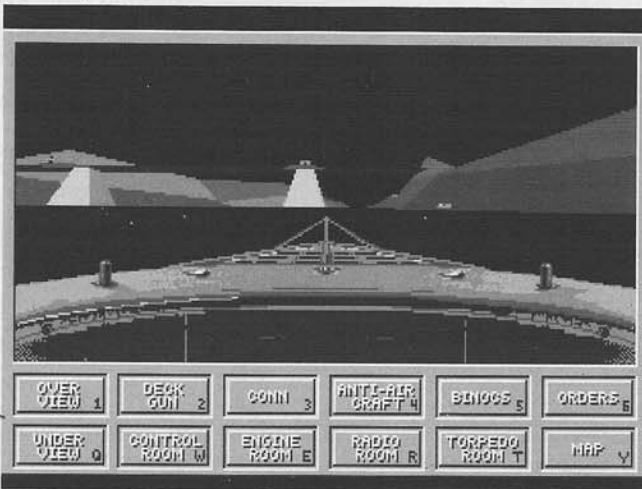
Amiga \$69.95  
IBM \$69.95

## Ratings:

Graphics: 77%  
Sound: 78%  
Instructions: 82%

## Overall:

79%



# Quick Shots

A quick look at what's new in the world of games

## INSECTS IN SPACE

The scenarios for computer games are becoming more and more bizarre. *Insects In Space* from Hewson features a naked heroine called Helen Bak with feathery wings and laser eye beams, flying around whilst mutated bees carry babies up into the sky, drop them to a grisly death and give birth to a fly in their excitement.

Does that sound weird? Well wait for this, there are two worlds, mirror imaged at the top and bottom of the screen. When a bee picks up a baby, it rises into the sky then drops it. If Helen manages to catch the baby it is worth bonus points. Depending on how many babies are held, bonuses range from points and extra babies to skipping levels, extra powers and shields. An angelic cherub appears when you rescue two top babies and one bottom baby and then fly into a warp which appears when you hold down the joystick button - these give you more firepower at the top or bottom depending which world you were on.

On higher levels the foes get progressively worse, dragonflies, maggots, smilies and more, each with its own attack pattern and power. The

sprites are beautifully detailed with the main character animated with flapping wings, bouncing boobs and a very doxy expression on her face.

Control is by joystick and this brings me to the only flaw in the game - when you turn to face the other way, the whole screen and character moves a little in the opposite direction. The only problem is if there was an enemy critter just off screen when you turn around, you'll find yourself hurled straight into it when you turn, causing death and loss of credits. This makes the game a bit harder than it should be, but nevertheless, it is a fast-paced, colourful and difficult game with a plethora of attack waves and foes, sound effects, bonuses and powers.

**Ratings:**  
Graphics 80%  
Sound 71%  
Gameplay 75%  
Overall 75%

**Distributed by:**  
Pacronics  
02 748 4700  
RRP: Amiga \$59.95

by Tony Smith

# SPEEDBALL

2

BRUTAL DELUXE

The Bitmap Brothers are at it again! Yep, the paradigms of perfection have perpetrated another prime piece of programming with *Speedball 2*. This is the sequel to the game that first brought the Bitmap boys to fame and glory - *Speedball* set new standards in presentation and style. And this time it's no different. The first thing that hits you in the eye is that the graphics are magnificent - these guys have got the smooth metallic finishes down to absolute perfection.

*Speedball* is a futuristic sport that makes Rugby League look like a game for pansies. The action is fast and furious, and sometimes hard to follow. There's plenty of biff - if your opponent has got the ball, don't hesitate to hit him however you can!

The game screen shows a view from above - both teams run around the field aimlessly until the ball comes into play. Then your closest player is highlighted, and he's under joystick

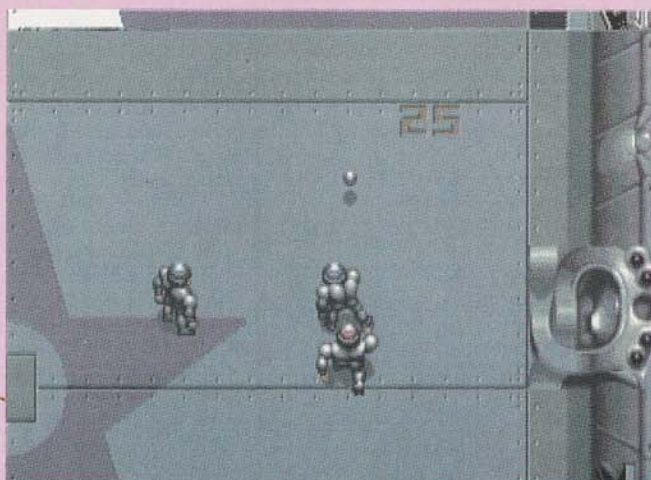
control. In essence, it's a little bit like all those soccer games you've seen in the past - but with a lot more biff, a lot more speed, and a lot better graphics.

You can also fiddle with the teams and the characteristics of each player, so there's a tactical element involved. Digitised sound effects are great too - from the ice cream man in the crowd to the calls of the referee.

All in all, a beautifully presented game, though maybe a little hard to get into at first - there's just so much happening on the screen it's hard to know which bits have got anything to do with your wagging of the joystick!

**Ratings:**  
Graphics: 93%  
Sound: 83%  
Gameplay: 81%  
Overall: 82%

**Distributed by:**  
Ozisoft  
02 313 6444  
RRP: Amiga \$59.95



# SUPER MONACO G.P.

Speed, speed, speed. If it's speed you want, then look no further - because *Super Monaco GP* has got loads of it. Add some better than average graphics and a competent sound track and you've got the makings of a very addictive game.

Before you play you'll need to qualify. First choose whether you'll play with mouse or joystick, then pick your skill level, and it's off for a practice lap of the French GP circuit. It's essential that you do well here - otherwise you won't even make it into the racing phase. So it's just you against the clock, and a bunch of roadside hazards. Trouble with the roadside hazards is they keep sort of jumping out at me - well, not exactly, but they're very hard to miss, especially if you don't pick the right line through a corner.

Once you finally make the grade it's off to the GP. Now you've got the added complication of 15 other cars on the track - it's far from easy, and it only

takes one smash to see you out of the race. Game over, and back to the qualifying rounds.

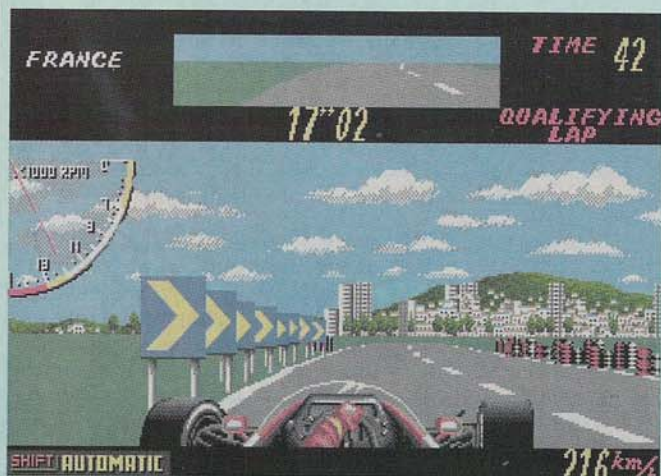
Graphics in *Super Monaco GP* are great - your view is from the eyes of the driver - you'll see your hands jiggling back and forth on the wheel in the foreground, the cockpit, the track, and in the distance the city skyline. The effect is nice, and by keeping the screen size fairly small the programmers have managed to attain both high speed and good detail. In a word, *Super Monaco GP* offers plenty of high speed thrills in a game that's easy to enjoy, but challenging to master.

#### Ratings:

Graphics: 84%  
Sound: 74%  
Gameplay: 83%  
Overall: 82%

#### Distributed by:

Ozisoft  
02 313 6444  
RRP Amiga \$59.95  
C64 \$39.95



# WIZARD'S WORLD

The world of Crumpt has been under siege. Worlo the Wizard has kidnapped all the Muffy people and taken them back to his wizardly world - Muffin the Muffy is the sole survivor. He escaped the wicked wizard's clutches, and sets out to rescue his little mates.

Well, okay, you've heard it all before - but it sets the scene for this neatly programmed little platforms and ladders game from Australian programmers Dean Fruzer and Michael Matthews. Dean is responsible for the artwork, Mike did the code.

This is their first game, and it's top class, with all the standard bonuses, traps, and baddies that you'd expect. There are 43 screens full of action, with

plenty of strategic decisions to make. Graphics are full 32 colour, and the guys have managed to achieve 50 frame per second animation. The music is fast and boppy, and the overall impression is bright and breezy - the perfect game for kids, and at the budget price of \$30.00 it's good value. Buy Australian!

#### Ratings:

Graphics: 78%  
Sound: 76%  
Gameplay: 75%  
Value: 82%  
Overall: 75%

#### Distributed by:

Stratagem  
062 586 619  
RRP Amiga \$30.00



Now for the third installment in our sea-battle super special - **ANDY PHANG** leads the fleet into battle in this strategic masterpiece ...

# HARPOON



"Captain! Captain! Radar indicates unidentified craft, bearing 20 degrees South West, and heading this way, sir!"

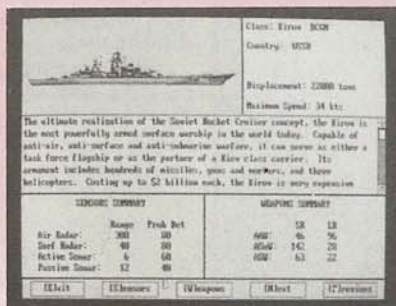
"Hmmm. We have no known report of friendly forces in that area. Crew on standby! This is a red alert! RED ALERT!"

When you're the Side Commander of NATO air and naval units in northern Europe, every unidentified craft can be the enemy. It may be a simple naval exercise conducted by the Soviet fleet, but for the safety of your forces, Europe, and the entire free world, you can't afford to make any mistakes. Just how do you rise to such an important rank in the Western military hierarchy? Simple. Buy *Harpoon*, the latest Amiga offering from Three-Sixty Software.

*Harpoon* has an interesting background, as the computer game is ac-

tually an adaptation of a board game (of the same name), and the designer of the original *Harpoon* is none other than writer/wargamer Larry Bond.

The exhaustive research undertaken by Bond in producing the data for *Harpoon* was most notably brought to public attention by the release of Tom Clancy's book *The Hunt for Red October*. When a United States inquiry into the "sensitive" data found in *Red October* and Clancy's other novel *Red Storm Rising* asked where Clancy got his information, he told them. All of the technical data on US and USSR warships,



submarines, aircraft, and combat strategies, came from his old friend Larry Bond's boardgame, *Harpoon*. The boon for us computer wargamers is, of course, that the binary *Harpoon* contains that very same database of statistics.

*Harpoon* is a strategic wargame, pure and simple. Marshal your forces, deploy air and sea units, and achieve your objective as defined by the orders you are given at the beginning of each scenario. The original game package itself comes with the GIUK (Greenland, Iceland, United Kingdom) Battleset, and there are currently two other battlesets available on the Amiga.

The GIUK scenarios are set in the northern European seas, and your goals as Side Commander will largely depend on which side you choose to play (yes, you can be a Soviet Commander if you so wish). If you haven't already guessed by now, the Soviets are viewed as the "bad guys" in *Harpoon*. You invade, you conquer, and

ways on the side of good, and must prevent this Russian plague from spreading further.

Part of the brilliance of the game is its depth. Again, with the "Bond" database at its disposal, Three-Sixty has been able to cram every bit of vital military data into two disks. When you call up the specs for a Soviet built Akula class submarine, a picture of the craft and its relevant details are immediately on screen. With this, you can decide whether an American Sea King helicopter or a Spanish Orion plane will be better suited to take out the offending sub. Depth also extends downwards to include factors such as weather conditions, staff reports, determining attack formations, and so forth.

As with most wargames, the graphics in *Harpoon* would not make your Amiga shine. A series of graphic windows informs you of the relevant details, and there is a map of the area of conflict on the top half of the screen. Click on the actions you want your subordinates to carry out, and in some cases the takeoff of fighter planes or helicopters can be accompanied with appropriate (digitized) sound effects. There isn't much use of colour, and the game can be a little slow in responding (apparently running *Harpoon* on a 68020/30 will speed up gameplay).

The thick manual will need some time to get through, but must be studied in order to grasp the game mechanics. Finally, the package also comes with a booklet containing game strategies from none other than Larry Bond himself (by the way, Bond was also part of the team that designed the computerized *Harpoon*).

*Harpoon* is definitely the strategy game of the year, and what makes it so is the comprehensiveness of the Bond database. Complete realism, and giving wargamers actual statistics of East and West military might, puts *Harpoon* in a class of its own. Be watching for the upcoming Persian Gulf Battleset, which will reportedly feature every available statistic on Operation Desert Storm. □

## Distributed by:

Electronic Arts  
075 911 388

## RRP:

Amiga \$69.95

## Ratings:

Graphics: 70%  
Sound: 60%  
Instructions: 95%

Overall: 91%



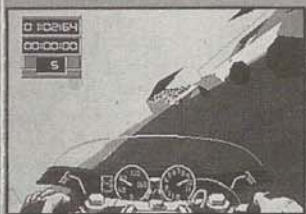
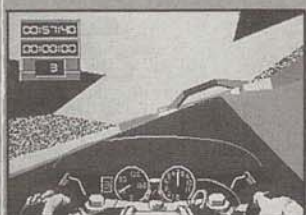
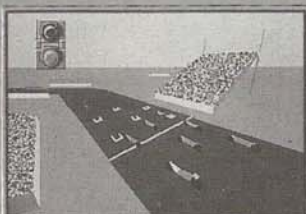
Time to "get on yer bike" as DAVID GLOVER checks out a master-piece of polygonal propulsion...

# Team Suzuki

I stare down the straight, my body hunched over the handlebars. My heart pounds and my palms sweat. Kevin Schwantz sits on my right, Kevin Magee on my left - good to see you back, Kev. Green light on. A deafening roar as clutch and accelerator combine to bring 500cc of Suzuki powerplant to life. We leave the grid as one and hurtle toward the first corner.

So begins another racing season as a member of *Team Suzuki*, a computer game which is the result of close collaboration between Gremlin Graphics (the game designers) and the real Team Suzuki. Their objective was to produce the closest thing to real bike racing available on a home computer.

Suzuki provided very detailed information to Gremlin ranging from general technical data about the bikes, to videos of the circuits taken from a camera strapped to the side of one of their machines. The result is a



bike racing sim that accurately reflects the sheer brute force of a 500cc Suzuki capable of accelerating from 0-60 mph in 2.7 seconds, and with a top speed of 186 mph.

The objective of *Team Suzuki* is simple: to be the fastest rider in the world by finishing at the top of the points table at the end of a sixteen race season. Each race is held on a different circuit ranging from old favourites like Le Mans, to our very own Phillip Island (sorry no Eastern Creek, yet). The game designers have ensured that each circuit represents a complete replica of the original track,

so that you and the other seven riders get to feel every camber and hairpin there is to offer.

*Team Suzuki* is fast! The programmers had to make the age-old trade-off between fancy graphics and game speed. They opted for speed! The game uses filled-vector graphics, resulting in a chunky, blocky looking bikes and a landscape scattered with straight lines and polygons. The screen may not be pretty, but the effect is highly satisfying with very smooth scrolling and the sensation of genuine speed and motion.

You have a choice

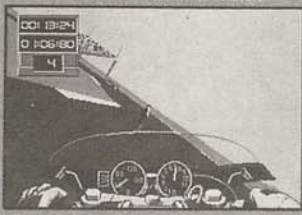
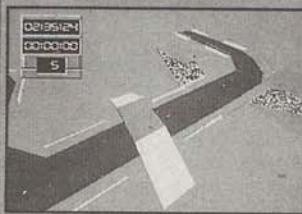
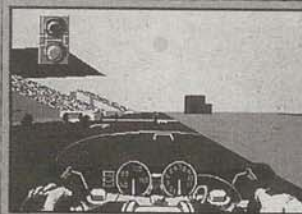
of three bikes. The smallest, the 125cc, has automatic gears and is therefore the easiest to control. As you would expect, the 250cc and 500cc machines handle quite differently. Both have manual gears and require extra skill accordingly. Handling these 2-wheeled pieces of Japanese technology ain't easy - even the 125cc "baby" is a tricky little beast to control.

Accuracy in picking your line through the corners is absolutely critical. If you weave off the track too much you sustain "damage points" - 100 of these and it's back to the pits in disgrace, although if you run off the road and "stack it" into a fence (or similar) the program is very forgiving. I haven't actually written off a bike in one fell swoop yet, and heaven knows I've tried!

The game offers three choices of control: keyboard plus mouse, mouse alone or joystick. I did best with the joystick. Once you think you've practised enough, it's time to put your newly forged skills to the test, either in a single race (where you get to select the track) or a full 16 race season. Qualifying takes place before any race - the time you achieve in qualifying will determine your position on the grid. Then it's time to get really serious: the race is on!

The game design allows a 3D perspective: the bike can also be watched in practice mode from several other points of view - sort of an "out of body experience". There is an automatic action replay of race finishes and crashes - I've seen myself crash from so many angles I'm beginning to wonder whether I'm still eligible for medical insurance.

*Team Suzuki* is an excellent bike sim. It's fast and realistic, but don't expect detailed graphics. If you like the thrill of the race and the chase then this one's definitely for you.



## Distributed by:

Mindscape  
02 889 2277

## RRP:

Amiga \$69.95

## Ratings:

Graphics: 78%

Sound: 85%

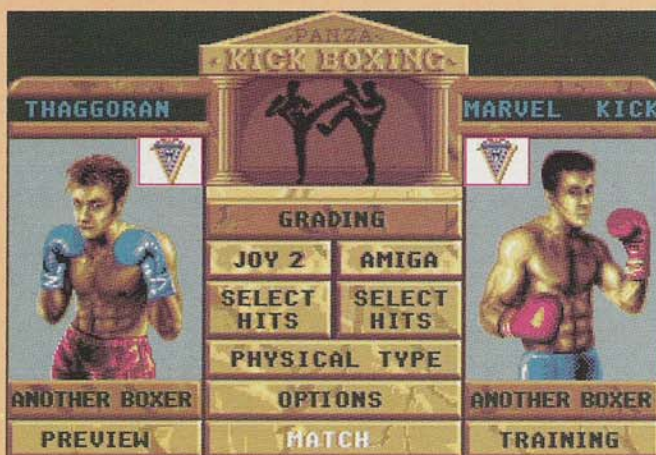
Instructions: 90%

## Overall:

84%



Kick Boxing is a nasty business. To play, you'll need to be rough, tough, and ruthless. JURIS GRANEY has got what it takes - but have you? Read on and find out ...



Andre Panza is Kick Boxing world triple champion and French Boxing European double champion. He is a University graduate in Judo and English Boxing and also the International Coach and Technical Manager of a League in Kick Boxing. He is a high style boxer with a devastating punch. In a word, he's good at everything.

Enough about Andre. What about the actual sport of Kick Boxing? Kick

mediate appeal. Loading doesn't take very long, and then it's time to create a character. There are eight boxers to manipulate - I picked one and renamed him. How does "Julian" sound? Then it was off to train. There are three main factors involved in becoming the best boxer - strength, resistance and reflex, all of which can be improved in the gym and in the boxing ring.

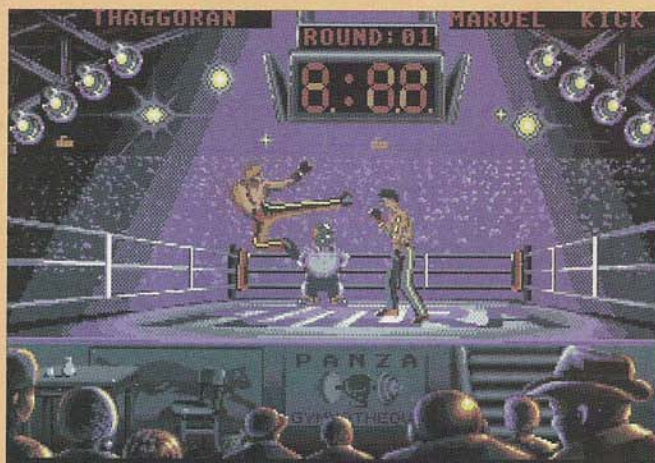
After training vigorously for some time I decided to have a spar with an opponent. Who was I going to pick? There are eight boxers to beat the brains out of, starting with the easy Dom Weak and ending with the ultimate confrontation - Andre Panza. Remember, don't get this guy mixed up with Andy Pandy. He's tough ...

Before I could actually fight an opponent I had to pick which blows I was going to use. There are a massive 55 blows to choose from, but you can only use 13 in a game. I picked my blows, picked my opponent (Dom Weak), picked my nose and went to the ring.

When you enter the ring you will notice two sets of lights above the boxers. These are their energy bars. Whenever a boxer is hit with a good blow the lights dim. When the lights are completely out the fight is over.

Panza has a great feature that I haven't seen on a boxing game before - a VCR. Yep, you can tape yourself getting beaten to a pulp by the best and replay it in slow motion. It's great fun after a fight to pick out the other boxers' weaknesses. It's also great to find out yours. When in slow motion you can see your opponent's face get kicked in and see the saliva spray out of his mouth. When you beat him or he beats you, you will be given a standing ovation by delirious crowds.

*Panza Kick Boxing* has superb graphics. There is no music but it is made up for with great sound effects. There are 75 digitized blows, falls,



foils and more than 600 combat positions. This game will impress you with the variety of movements, and astound you with its realism and the perfection of its animation. All in all *Panza Kick Boxing* is sure to become a hit with sports sim fans, and it will probably be the best for a long time yet. So what are you waiting for? Put on your gloves and your gumshield and get into the ring! □

## Distributed by:

Mindscape  
02 899 2277

## RRP:

Amiga \$59.95

## Ratings:

Graphics: 83%  
Sound: 78%  
Instructions: 85%

Overall: 83%

**FUTURA**

# Amiga Annual 1991

## ESSENTIAL READING

- ☆ Complete up to date list of software available in Australia with description, price, availability, etc
- ☆ User Group List ☆ Fish Disk List ☆ Graphics ☆ Word processing
- ☆ Databases ☆ Hard Drives ☆ Communications ☆ Music ☆ Desktop Video ☆ Multimedia
- And lots more !

**On sale at newsagents  
and computer dealers  
NOW**

**only \$6.95**

Or from us for \$6.95 plus \$1 postage.

Send cheque, money order or Bankcard number to  
Gareth Powell Publishing  
21 Darley Road, Randwick 2031  
Phone 02398 5111

## Big news for computer owners

You can obtain a tremendous variety of programs for your computer in Public Domain software. Programs of all types including Demos, Educational, Games, Graphics, Music and Utilities, etc.

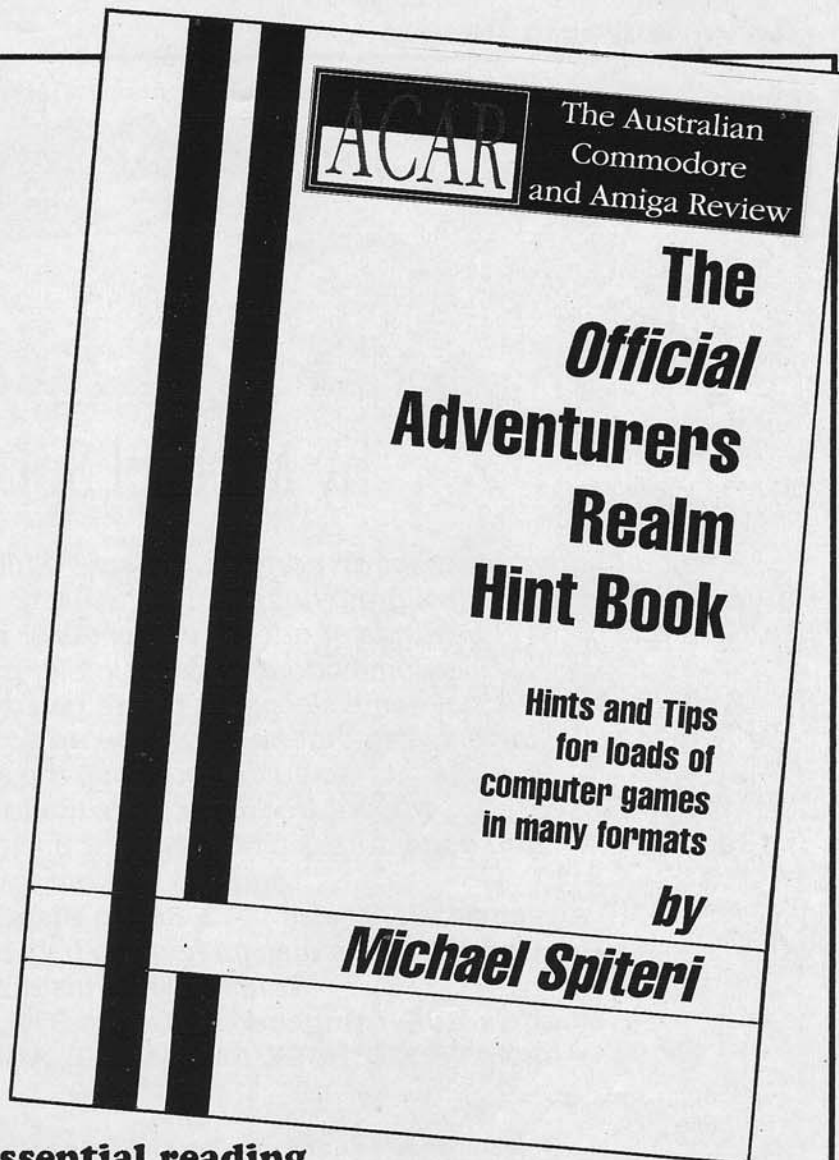
**OUR LIBRARY HAS DIVISIONS FOR  
COMMODORE 64, AMIGA, IBM  
AND COMPATIBLES INCLUDING  
COLT, AND APPLE II.**

Just two examples:

**GAMES MEGAPAK** - over 350 Games for C64 on 20 disk sides for only \$40 posted.  
**EDUPAK 1** - 267 Educational programs for C64 on 16 disk sides for \$32 posted.

Write for details to:

Allan Crouch  
29 Happ St. Auburn NSW 2144  
Phone: 649 4904



## Essential reading for adventurers - get your copy now!

Hints and tips on more than 40 games, compiled by Michael Spiteri, whose "Adventurers Realm" appears every month in this magazine.

**Only \$9.00 from newsagents and computer dealers**

Or from Commodore and Amiga Review (02) 398 5111

## Make sure of getting your copy - Subscribe now!

### The Australian COMMODORE and AMIGA REVIEW

#### Rates within Australia:

6 issues \$19.00 (inc postage)  
12 issues \$36.00 (inc postage)  
Postage extra for overseas

Post to: 21 Darley Road, Randwick NSW 2031  
Phone (02) 398 5111 Fax: (02) 398 5322

Please enrol me for ..... issues subscription to The Australian Commodore and Amiga Review, commencing with the ..... issue.

☐ I enclose a cheque/money order for \$ .....

☐ Please charge my Bankcard

Bankcard number .....

Expiry date: .....

Name: .....

Address: .....

Postcode: .....

Please tick applicable box

First Subscription ☐ Renewal ☐

# Adventurer's Realm

by Michael Spiteri

Are you a late-nighter, or an early-morninger? Still plugging away at the keyboard, as the bags under your eyes grow heavier and heavier? There is a good chance that you are stuck in one of the thousands of adventure games or role-playing games now available for the Commodore 64 & Amiga (or even the Vic-20!).

Well, you'd better get some sleep, but before you do, write a letter to the Realm asking for help to solve the problem that has kept you up so late. There are also free hint sheets to guide you along the way ...

If you are a seasoned adventurer who can relate to the above, then maybe you can help some of the many adventurers who are stuck by sending in your hints and tips. The address to write to is:

**Adventurers Realm 12 Bridle Place, Pakenham, Vic 3810**

Kamikaze Andy is also on hand to help out in role-playing games.

Write to him in his dungeon:

**Realm's RPG Dungeon P.O.Box 315, Maddington, WA 6109**

**\* ALWAYS ENCLOSE A STAMPED ADDRESSED ENVELOPE \***

## Realm's Official Vic BBS

You cannot get a more Official BBS than the one in Werribee. Of course, I am talking about Island BBS - (03)7423993. There is a special Adventurers Realm section where you can air your grievances and download hints and tips. Available seven days a week, and 24hrs a day, and now also offering a very very attractive membership offer (you won't believe how low the price is!)

## Realm **Chit Chat**

Justin Prime wants to know where he can find *Curse of Azure Bonds* and *Secret of the Silverblades* for the Amiga. There seem to be quite a few of C64 and IBM versions floating around - but nothing for the old Amiga. He is also having problems looking for *Zork Zero* and other Infocom games.

M.S: Infocom games have always been hard to get hold of, and now that they have gone under, it would be just

about impossible to track some down, except in the second-hand market.

Can anyone help out regarding the D&D games, though?

Stuart George would like to comment on a clever contact. "In the Troubled Adventurers part (April issue) there is a guy called Martin McLaren who asks several questions about *Pool of Radiance*, and it just so happens that Martin is also a clever contact - and *Pool of Radiance* is one of the games he said he could help with. Why is he asking questions about it? I thought clever contacts were people who have completed games and can help, not for people

who have only partly finished the games?"

M.S: We could have another Perry Mason adventure out of this: Perry Mason and the Case of the Not So Clever Clever Contact.

Anyhow Stuart, you don't necessarily have to fully complete the game to be a clever contact (though it helps!). If you have made some headway in a game - enough to help someone who is stuck earlier in the game, then you could be called Quite a Clever Contact, or Nearly a Clever Contact. In many games, especially the larger ones, you can never be sure how close you are to solving it - even if you've solved heaps of problems!

# The Dungeon by Kamikaze Andy

Last month I discussed the possible impact of Commodore's CDTV on the adventure game market. The expanded storage capabilities of a CD (around 550 Megabytes!) will certainly make it easier for software companies to release graphics and sound intensive games for Amiga owners. Currently, a game like Sierra's *King's Quest V* already spans a huge number of 3.5 inch disks, a sign of the massive amounts of memory being needed by the most sophisticated of today's software products.

However, it will probably take some time (at least a year) before software designers fully harness the power of CD technology. So what about the role playing games of today, which still require lots of memory and lots of disk space?

## Hard drive option

The most viable option is the hard disk drive. Prices of Amiga Hard Disks have dropped dramatically, and realistically, Amiga owners do need a hard drive. Most games for the Amiga now come on multiple disks (Sierra on average, release Amiga games with five disks; Sir-Tech's *Bane of the Cosmic Forge* was on five disks; SSI usually produce three to four disk games, and so on). Amiga software developers are beginning to recognize that most Amiga owners out there do have (or will have) a hard disk, and thus will design their products accordingly. Almost every game you buy now is hard disk installable. A 40 Megabyte hard disk has become as vital as a megabyte of memory, or two disk drives.

Speaking of SSI, their hard disk installable *Renegade Legion: Interceptor* will be on the shelves very shortly now, though only featuring 16 colour graphics. AD&D fans can also pick up *Secret of the Silver Blades*, the long awaited Amiga conversion of its C64 classic, next month. A sequel to *Silver Blades* will be out for C64 in October, and on Amiga in December. Meanwhile, look out for *Shadow Sorcerer*, an iso-

metric and puzzle orientated AD&D title which will also feature AD&D Second Edition rules.

*Captive* has been one of Mindscape's most popular RPG titles, and you can experience more aliens and more combat in the new *Captive Extra Missions* disk, available now on Amiga. The inevitable sequel, the brilliantly titled *Captive II*, should be released around Christmas.

The final month of the year is popular with software publishers (probably because 'tis the season to go shopping...tra-la-la-la...) and Interplay has *Dragon Wars II* as well as *Mean Time* (a time travelling RPG) slated for the festive season. If we're lucky, Origin will also unveil the Amiga version of *Wing Commander II*, but with their current backlog of Amiga conversions, sometime next year seems to be a more likely date.

## Raunchy release

Fans of Steve Meretzky (*Planetfall*, *Leather Goddesses of Phobos*, etc) will undoubtedly have purchased his latest raunchy release, *Spellcasting 101: Sorcerers Get All the Girls*. Well, if you've managed to direct hero Ernie Eaglebeak in saving his Sorcerer's University (as well as scoring with every girl in sight!), Meretzky has come up with *Spellcasting 202!* The interface will be the same as *Spellcasting 101*, with emphasis on the text parser and those annoyingly addictive Meretzky puzzles.

If you can't wait, publishers Legend Entertainment has released *Timequest*, a Bob Bates adventure that also uses the same format. Bates, who authored the late Infocom's *Arthur* and *Sherlock* text adventures, has designed a time travel (seems a popular subject these days!) scenario in which you chase an evil wrongdoer through various historical periods, trying to prevent him from changing the course of history. As with all of Bates' other games, *Timequest* has been researched thoroughly and with great historical detail.

## MEMORY EXPANSION PRICES at April 15th

1MB x 1 - 100ns	DIP	DIP	\$6.10
- 80ns	DIP	DIP	\$7.30
4x256 - 100ns	DIP	DIP	\$7.00
- 80ns	DIP	DIP	\$7.45
41256 - 120ns	DIP	DIP	\$1.80
- 100ns	DIP	DIP	\$2.00
1MBx4 (44C1000) 80ns	A3000	ZIP	\$34.00
1MBx4 (44C1002) 80ns	col static	ZIP	\$36.00
1MBx8 - 100ns	simms (G.V.P. Hard Drive)		\$56.00
x8 - 80ns	simms		\$68.00
1MBx9 - 100ns	simms		\$62.00
- 80ns	simms		\$72.00
4MBx9 - 80ns	simms		\$295.00

All types of DRAM & memory modules in stock  
Please phone for the latest prices. Sales tax 20%.  
Overnight delivery, credit cards welcome.  
1st floor, 100 Yarrara Rd, Pennant Hills 2120  
PO Box 382, Pennant Hills 2120

**pelham PTY LTD**

Tel: (02) 980 6988 Fax: (02) 980 6991

## AUSTRALIA'S CHEAPEST DISKS

FREE CATALOGUE PLEASE CALL IN & PICK ONE UP

"NO BRAND" LIFETIME WARRANTY  
BOXES OF 10 DISKS

	1-9	10+	50+	100+	500+
5 1/4"DS/DD	\$4.95	\$4.80	\$4.70	\$4.60	\$4.40
5 1/4"DS/HD	\$10.50	\$9.95	\$9.50	\$9.25	\$8.75
3 1/2"DS/DD	\$9.75	\$9.50	\$9.25	\$9.00	\$8.50
3 1/2"DS/HD	\$19.00	\$18.75	\$18.50	\$18.00	\$17.90

### ROD IRVING ELECTRONICS

MELBOURNE: 48 A Beckett St. City PH: (03) 663 6151  
NORTHCOLE: 425 High St. Northcote PH: (03) 489 8866  
SYDNEY: 74 Parramatta Rd. Stannmore PH: (02) 519 3134  
MAIL ORDER: 56 Renner Rd. Clayton PH: (03) 543 7877

DEALERS:  
MICRODOT: 177 Springvale Rd. Nunawading PH: (03) 894 1255  
GREENSBOROUGH COMPUTERS: 67 Grimshaw St. Greensborough PH: (03) 434 6166  
BLUESTAR COMPUTERS: 271 Maroonah Hwy Ringwood PH: (03) 870 1800

## ADVERTISERS INDEX

Allen Computer	51	Logico	49
Amiga P D Ctr	42	Maxdrive	43
A. Crouch	79	Maxwell	39
Briwall	46/47	Megadisc	62
Brunswick	62	MVB / Computa Magic	7
Commodore	18, 19, 57, 63	Nortech	51
Computer Discounts	OBC	PCM Computer	15
Computermate	IFC, IBC	Pacific Microlab	33
Computer Spot	28, 29, 30, 31	Pactronics	4, 41
Desktop Utilities	48	Parcom	55
DB Computing	51	Pelham	79
Electronic Arts	37	Phoenix	53
Fonhof	8	Power Peripherals	3, 5
Gainrun	55	Quadrant	45
GP Software	55	Ramsan	25
Hard Disk Cafe	22, 23, 24	Regional Computers	21
Harris Hi-Tek	40	Rod Irving	79
Interlink	34/35	Sigmacon	53
Kawai	9	Unitech	59
Lazarus	62	XEL p/l	8

## Adventurer's Realm

### Help, Help & more Help or the Smart Adventurers Dept.

If you were pulling your hair out a few months back, you should have grown it all back again in time to tackle newer problems, as your original problems get solved here this month!

Many thanks to all who contributed to this section, your help will be greatly appreciated, I can assure you.

**Game:** Pool of Radiance

**For:** Martin McLaren (March Issue)

**From:** Kristian Adamson, Stuart George, and Joel Williams.

**Help:** To stop pollution of Stojanov River, you must use the teleports and throw three rocks or stones. Do this until you reach an L shaped corridor. Use the teleport again and go through the door and destroy all the equipment. Don't kill the Lizard Man. There is no way of being attacked at Zhentil Keep, you must find your way out - and stand guard at night! The Pool and Tyranthraxus are in the hedge maze at Valjevo Castle. Before you go in there, enter all the rooms around the castle. Don't steal from Lordbane until you have been in all the rooms. Some of the Journal Entries you find at the House of Bivant are maps of the maze.

**Note:** Joel is currently mapping the castle of *Pool of Radiance*, showing where the two Tyranthraxus' are (the real one is a dragon). Send a stamped addressed envelope to: Joel Williams, P.O.Box 309, Birdwood, S.A.5234

**Game:** Neuromancer

**For:** Colin Smith (February Issue - disguised as Jan issue).

**From:** Justin Prime

**Help:** Accept the job offer by Armitage on the PAX. After sending a message to Armitage, show up at the meeting place and get arrested. The lawyer should do all the work.

**Game:** Operation Stealth

**For:** Noel McAskill (April Issue)

**From:** Stuart George

**Help:** To rescue the girl, wait until you hit the sea bed and then operate the bracelet. Swim over to the girl quickly and operate girl (!).

**Game:** Venom

**For:** Beverly Deegan (April Issue)

**From:** Stuart George

**Help:** Tell Harg to drop his sword.

then take it and you should be able to control him. To enter the tap room, move a barrel as soon as the innkeeper enters. Open the trapdoor as soon as he leaves, and climb down.

**Game:** Asylum

**For:** Scott Pitcher (April Issue)

**Help:** To stop the exterminator, tiptoe outside, enter and tie him up with the rope. Wear the rat suit.

**Game:** Mortville Manor

**For:** Ben Falcone (March Issue)

**From:** Noel McAskill

**Help:** Murielle is Julia's Lady Companion. There are two orbs - one has a slot into which you can put the coin in and then turn it.

## CLEVER CONTACTS

Stuart George (66 Sharon Road, Springvale, Vic 3171), can now help in *Police Quest I,II*, *Space Quest I*, *Larry I and Gold Rush*, in addition to *Pool of Radiance*, *Fish*, *Zak*, *Bards I,II,III*, *Wonderland*, and *King Solomon's Mines*.

Also, the wrong postcode was printed of David McKinney of 126 Norton St, Leichhardt. It should have been 2040 (NSW). David can offer help in *Hobbit*, *ZZZZ*, *Dracula*, *Bards series*, *Pool of Radiance*, *Ultima 3-4*, *Hitchhikers*, *Dungeon Master*, *Champions of Crynn*, *Curse of Azure Bonds*, *Corporation*, and *Kings Quest I*.

## Free Hint Sheets

The following hint sheets are free, free, free!!!!

Just select up to four, write them on the back of an envelope, containing a stamped addressed envelope, and send it to:

Free Hint Sheets, 12 Bridle Place, Pakenham, Vic 3810

Hint sheets include....

Zak McKracken, Indy, Guild of Thieves, Jinxter, Pawn, Fish, Maniac Mansion, Uninvited, Bard Tale I,II,III, Zork I,II,III, Hitchhikers Guide, Faery tale, Borrowed Time, NeverEndingStory, Deja Vu, Dracula Pt2, Adventureland, Pirate Adventure, Hobbit.

### Problems, Problems & more Problems or the Troubled Adventurers Dept.

Stuart George, helper of many an adventurer, and hot player of *Revenge of the Not So Clever Contacts*, is currently stuck in a few games. Firstly, in *Kings Quest 4*, where can he find a feather and how does he get rid of the troll in the cave behind the waterfall? Also how does he enter the Giant's place. In *Rebel Planet*, how does he fix the scooter?

Dave Randall of Newport in Victoria is stuck in two games. In *Camelot*, how does he cross the desert? He is carrying nothing to get him past the cobras, and if he uses the lodestone to get across, he dies of thirst. Then, in *Heroes Quest*, how does Dave get through the bandits fortress? Should he use the magic carpet? Help wanted very badly!!!

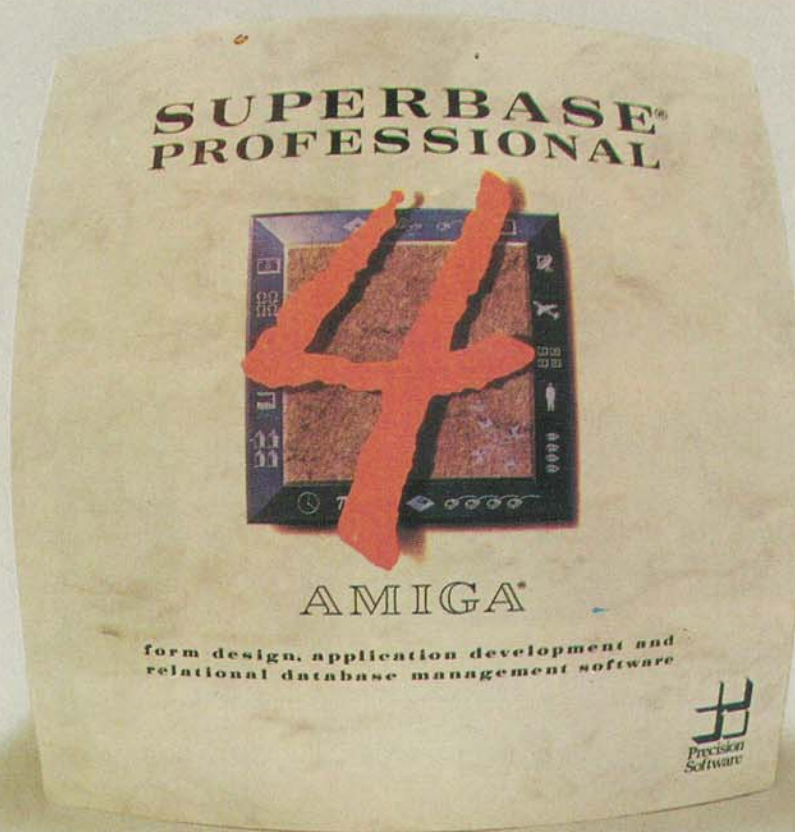
The third and final person stuck is Daniel Marti of Randwick in NSW. He is stuck in one of those "not so challenging" (Kamikaze Andy quote) riddles in *Legend of Faerghail*. The riddle is as follows....

What is it, that not many like, but directs even the greatest of King's actions. It's much like a sword, and made to hurt, but it never draws blood even though wounding thousands. It thieves no-one but it does make rich. It spans the whole Earth and makes life fit. The greatest Kingdoms it has founded, and built the oldest of them all; but never has it begun a war and the peoples who trust in it will live in plenty for ever more...What is it?

(MS: Well the answer is certainly not RIDDLE, however it might have a Biblical meaning...)

Daniel also wants to know what to do with the blacksmith who seems to be waiting for something. Any takers?

One more ... *The Realm of Darkness* is still the game, and the mirror is still the problem. Someone must have played this game!!! □



# The Heavyweight

For your most demanding database needs, look no further than Superbase® Professional 4, the heavyweight database for the Amiga. The result of more than two years intensive scrutiny by some of the world's largest organizations, this technology won the largest Defense Department PC contract ever awarded and is now available for the Amiga.

Superbase Professional 4 isn't merely an upgrade from our best-selling Superbase Professional, it's an entirely new package absolutely bulging with new features like Workbench 2.0 look and feel, a visual object-oriented Form Designer, over 100 new DML programming commands and the enormous capacity to expand to meet your growing needs.

## From the simple to the complex

Now fully cross-compatible with our best-selling PC version, Superbase 4 for Windows, Superbase Professional 4 provides an interface easy enough for novices to learn and use, along with the tools and power to build the most complex database systems you'll ever need. Applications port easily between both environments for added flexibility.

The unique VCR-style Control Panel lets you browse through loads of data, and an improved Form Designer gives you the ability to design custom input screens and presentation-quality output forms quickly and easily. Command pushbuttons, a graphical labels facility, expand-

ed ARexx support and direct dBase file support are just a few of the new features you'll find in Superbase Professional 4.

## Heavy numbers

Superbase Professional 4 is a heavyweight in the numbers department too. Up to a billion records per file with up to 999 indices, all open and updated dynamically. Internal text fields can contain up to 4,000 characters and external text can be of unlimited length. There's no limit to the number of fields, open files or relational joins. The only limit is your imagination.

Add a ton of other features like image support (IFF, PCX, TIFF, IMG, EPS and more), telecommunications, a built-in text editor for mailmerges and other operations. Multi-file queries, a banded report generator and WYSIWYG form design all combine to make Superbase Professional 4 the heavyweight among database programs.

Superbase Professional 4 is available now at your favorite dealer, or call us for upgrade information.

## Superbase Professional 4

**\$699.00**

Distributed and Supported in Australia by:  
 **COMPUTERMATE®**  
 products (australia) pty. ltd.

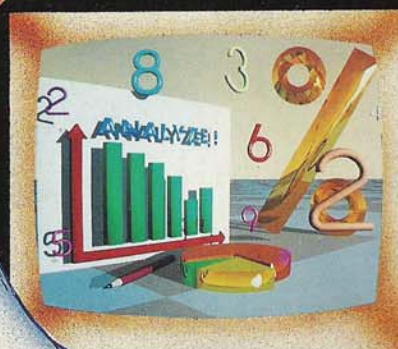
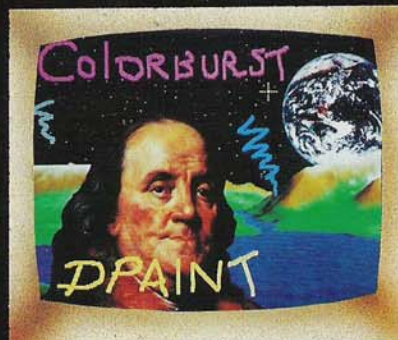
P.O. Box C64, Mt. Kuring-Gai, N.S.W. 2080  
 Ph: (02) 457 8388 Fax: (02) 457 8739



Owners of previous versions of Superbase can upgrade to V4.0 by sending \$399.00 plus old version disks and dongle to: Computermate/Superbase 4 Offer, P.O. Box C64, Mt. Kuring-Gai, N.S.W. 2080. Ph: (02) 457 8388.

# COLORBURST

24/48 BIT GRAPHICS/VIDEO ENGINE



Actual unretouched screen shots

16.8 MILLION COLORS ON YOUR AMIGA

- REALTIME IMAGE PROCESSING
- 1.5MB DISPLAY RAM
- ON-BOARD GRAPHICS PROCESSOR
- HIGH RESOLUTION 768 X 580
- PROFESSIONAL BROADCAST QUALITY PRODUCT
- PURE RGB OUTPUT - ENCODE TO ANY FORMAT - TOTALLY GENLOCKABLE
- INCLUDES 24 BIT PAINT PROGRAM
- LOADERS FOR IFF FILES, SCULPT, DIGIVIEW, 24 BIT RAY TRACED IMAGES, IMPULSE, DRAW4-PRO, BLITZ BASIC PRO, etc.

- CONNECTS THRU MONITOR PORT TO ALL AMIGAS
- COMPATIBLE WITH ALL AMIGA MONITORS
- NTSC/PAL/SECAM COMPATIBLE
- PROGRAMMABLE THRU COPPER, BLITTER, INTUITION
- 24 BIT DOUBLE BUFFERED ANIMATION AT 20fps
- 24 BIT PALETTE MAPPING
- COMPLEX COLOR CYCLING AND VIDEO EFFECTS
- REAL TIME HORIZONTAL AND VERTICAL SCROLLING
- 24 BIT STENCIL CAPABILITY ON DUAL PLAYFIELDS WITH FREEDOM TO MIX AMIGA AND COLORBURST GRAPHICS
- HARDWARE SUPPORT FOR 24 BIT DESKTOP PUBLISHING

**M.A.S.T.**

MEMORY AND STORAGE TECHNOLOGY P/L

19-21 BUCKLAND ST, BROADWAY 2007 Ph: (02)281-7411 Fax: (02)281-7414  
U.S.A. (702)359-0444 GERMANY (0221)771-0918 SWEDEN (40) 93-1200

Thanks to ASDG for ADPro and Octree for bishops images.